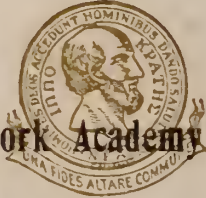


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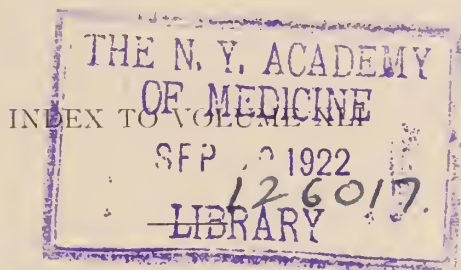
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January to June, 1922

This is an alphabetical index of articles and discussions arranged by leading words. It contains occasional cross references. Names of authors and men who discussed the papers are also included. Details of society proceedings, including the names of papers read, officers elected, etc., can

be located in the proceedings under Societies, Editorials, News of the State, Marriages, Deaths. Public Health items are classified under these headings. The subjects of editorials also appear alphabetically and are marked (E).

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Original Articles

THE THYROID GLAND AND THE TOXEMIAS—WITH SPECIAL RELATION TO INTESTINAL STASIS*

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The inter-relation of the endocrine glands is so close that it is almost impossible to have a pathological condition of one gland without some functional disturbance of the other glands of the body. This is particularly true of the thyroid, which seems to be, in a large measure, the monitor or regulator of the entire internal secretory system. Many theories have been advanced as to the way in which the thyroid functions, but little has been proved beyond the fact that the organ produces an internal secretion. The fact has been pretty well established by transplanting the thyroid gland from its primary site to another part of the body where it will function as thyroid tissue capable of carrying on its original mission in the organism.

According to Hertoghe, there are very many pathological conditions of the human body which may be traced to the *under* or *over* activity of the thyroid gland. In hypothyroidism the degree of thyroid inadequacy may range from one extreme to the other—from almost complete idiocy to those types in which but one symptom proves the thyroid insufficiency. In cases where the activity of the gland is not sufficiently impaired to cause advanced myxedema, the symptoms of hypothyroidia most frequently met with are obesity, with fat pads at various points of the body, loss of hair and teeth, lassitude, stubborn constipation, mental torpor, enlargement of the lymphatic glands and, frequently, enuresis.

In myxedema, which is the maximum expression of hypothyroidism, as it progresses after the

body growth has been accomplished, there is infiltration throughout the various tissues of the body. When a cell has done its normal work for some time it degenerates, and the proteid molecule must be taken to pieces. It must be split into minor principles and then eliminated through the various channels—lungs, bowels and especially through the kidneys—in the form of urea. If the thyroid is deficient, these principles are not carried away as rapidly as necessary. They are retained in the body under the form of fat and mucin: they enlarge the body cells and cause an accumulation and edema of a specific kind which is termed "Myxedema." Muscular cells are infiltrated with fat and mucin and contraction of the muscles is slow and may be painful: limbs become stiff and the patient complains of "Rheumatism." Glands become infiltrated and the secreting elements are often suppressed. Hepatic and intestinal secretions are greatly diminished. In thyroid deficiency the skin becomes dry and cold and a good soil for eczema and other skin diseases. The nervous system demonstrates the infiltration by sluggish reflexes, headache, giddiness, loss of memory and, in the advanced stage, attacks of coma which may terminate fatally.

Infantile myxedema, or cretinism, is deficiency of thyroid secretion during the period between birth and puberty. It is characterized by retardation of physical and mental development, the main symptoms of which are: stunted growth, thickened lips and tongue, a harsh skin and more or less mental deficiency. While cretinism is the result of hypothyroidism, it should be remembered along this line that in every cretin the thyroid gland is not necessarily absent. In some cases it is markedly enlarged. It is not the size, but the functional output of the gland that counts.

Severe cases of hypothyroidism, such as cretinism and advanced myxedema, are striking and not easily overlooked, but mild degrees of these

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conditions are likely to escape any but the most painstaking examiner.

In hyperthyroidism a morbid condition of the entire body, characterized by the presence of symptoms due to the absorption of an excessive amount of thyroid secretion, with or without enlargement of the thyroid gland, suggests the diagnosis commonly known as "exophthalmic goiter," Graves' disease, or Basedow's disease. Inasmuch, however, as many of these patients exhibit no prominence of the eyes, the reference to "exophthalmos" in the naming of the disease is inaccurate and misleading. Needless to add, the attachment of the name of an individual to a disease, however important his observations may have been, is entirely unscientific. The term "systemic goiter" which I first used in a paper¹ published in 1914, seems a more accurate designation of a condition the symptoms of which are due to the introduction of thyroid toxins into the system, resulting in hyperthyroidism or dysthyroidism—increased or perverted thyroid secretion. Systemic goiter should be differentiated from simple goiter in which, no matter how great the enlargement of the thyroid gland, there is an absence of thyreotoxic symptoms. With systemic goiter there is usually increased frequency of action and palpitation of the heart, protrusion of the eyeballs, tremor, and a number of mental and nutritional disturbances. All of these conditions may be present or one or more may be absent. Moreover, the enlargement of the thyroid gland is of secondary importance, since it is not the size but the activity of the gland which is the determining factor. Even an abnormally small gland may oversecrete and cause systemic symptoms.

Before approaching hyperthyroid conditions, associated with obvious goiter, from an operative standpoint, it may first be necessary to consider whether all the applicable hygienic measures have been exhausted. The thyroid gland is especially susceptible to many kinds of infection—from gums, tonsils, teeth, sinuses and blood, but particularly from a toxic condition of the intestines. In chronic intestinal stasis—a persistent retention or retardation of the contents in some part of the intestinal canal—there is frequently a condition of intestinal putrefaction and autointoxication which causes an instability of the thy-

roid gland. Lane writes: "In uncomplicated cases of stasis the thyroid sometimes wastes until it may be imperceptible to the finger. It gradually but surely increases in size after colectomy. The wasting of the thyroid plays an important part in the development of the symptoms which the sufferer from chronic intestinal stasis exhibits. The thyroid is liable to various infections which cause the several forms of the disease of that organ, such as exophthalmic goiter, general hypertrophy, the development of adenomatous tumors, of cysts and finally of cancer."

In an earlier paper² I called attention to many abnormal mammary changes apparently caused by autointoxication. Cases were reported in which the amount of toxemia present was reflected by the degree of change in the mammary tissue. When the autointoxication was relieved the breasts either markedly improved or returned entirely to normal. However, the *rapidity* with which the breasts returned to normal depended upon the thoroughness of the elimination of the toxic causes. It is reasonable to assume that many of the conditions which produce morbid changes in the mammary gland have the same effect on the thyroid, allowing, of course, for the difference in the gland structure. Poisons in the blood may cause, first irritation, then glandular hypersecretion, later hypertrophy and finally atrophy and lessened function of the gland.

The thyroid, as well as all other glandular tissue, is bathed in blood and dependent upon the character of its hematogenous environment both for its own nutrition and its proper function in the body economy. As a tissue it must have food. As a gland it must have the proper material to work up adequate secretion, in quantity and quality, for the normal demands of the organism.

In writing of "thyroiditis," Leonard Williams states: "Of all things in medicine chronic constipation ought to be the easiest of diagnosis. But it is not. There are hundreds of people who have a daily evacuation who are nevertheless walking septic tanks. These tanks are terrible depressors of the thyroid and unless you empty and disinfect them, your correct diagnosis of thyroid inadequacy and its logical thyroid therapy, will avail you nothing."

Chronic intestinal stasis is not constipation.

1. The Present Status of the Surgery of Systemic Goitre. Jour. of the Michigan State Med. Soc., April, 1914.

2. Benign Mammary Tumors and Intestinal Toxemia. Amer. Jour. of Obst. and Gynec., February, 1921.

Some persons who are markedly static suffer from persistent diarrhea. The writer has elsewhere spoken of the time when there was difficulty in understanding what residual urine really meant. As we know, frequent micturition may be merely the overflow from the bladder, so in chronic intestinal stasis one may have constipation with diarrhea—an overflow of fecal matter with large amounts of poison retained and absorbed by the system.

As early as 1779 the relation between goitre and a static condition of the intestines was more or less vaguely outlined by Wilmer, a surgeon of Coventry, England, who published a volume entitled: "Cases and Remarks in Surgery to which is Subjoined an Appendix Containing the Method of Curing the Bronchocele in Coventry." The author cites two cases cured by medical measures—the first by a prescription of roots of madder, to be followed by a *purge* after which two drahms of alkaline powder, mixed with three large spoonfuls of old red port wine were to be given each night and morning. The second prescription called for "A medicine composed of millepides, burnt spung and cinnabar of antimony, the patient to be *purged at intervals* with mercurial cathartic pills." Probably the *purging at intervals* had a more vital bearing on the cure of the bronchocele "in forty days" than was evident to the foresighted author of the old and illuminating volume.

The evidence of several authorities, including Rowell and Chapple, tends to prove that "Alimentary toxemia" is the basis cause of many goiters. These authors cite instances of goiters which have diminished in size or disappeared as a result of medical or surgical measures which had the effect of draining the intestine. McCarrison reports cases of goiter successfully treated by means of vaccines prepared from organisms known to inhabit the intestines. While it has been demonstrated that the thyroid gland may be infected from many sources, the following case histories are cited to illustrate the point that the thyroid reacts very markedly to toxins from the intestinal canal.

For the purpose of clearness the cases have been divided into seven classes:

Class 1. Mild types of thyroidism which clear up when the toxic elements of the system are removed, as:

(a) The atrophic gland, with small isthmus,

which may increase in size and function, when the toxemia is relieved.

(b) The hypertrophic gland which may function normally when the intestinal stasis or other toxic condition is removed.

Class 2. In this class hyperthyroid conditions may be present for a long time, until a sudden nerve strain, a fright, or an aggravation of the toxic elements may cause acute and pronounced symptoms, often with obvious goiter.

Class 3. This class includes the cases in which the thyroid is so atrophic that treatment for toxic conditions alone will not relieve the patient and thyroid treatment must be instituted and sometimes continued indefinitely.

Class 4. These patients have not only a chronic hyperthyroidism, but a marked increase of thyroid activity, because of an acute, or a sub-acute, abdominal condition. They may be cured by operation upon the alimentary tract.

Class 5. In this class are placed the cases in which degeneration of part of the gland has occurred and irritates the remainder, causing hypersecretion. Operation on the goiter is necessary to lessen the abnormal stimulation of the gland.

Class 6. In this group we have pronounced systemic goiter where operation is indicated and where abdominal conditions also require surgical interference to effect a cure.

Class 7. These are cases with marked thyroidism—large or small gland—but demanding operation. The system is so thoroughly poisoned with thyroid toxins that the necessity of ligation, or some other form of thyroidectomy, is absolutely indicated. Often the patient is so toxic that a period of preparation for operation is required. Here a careful realization of the complexity of the toxic state may be of aid. Lessening of the hyperthyroidism, by topical applications of ice to the neck, physical and nerve rest, eliminating possible acidosis by alkalies and free catharsis, is often of advantage. In addition, the use of alkaline colonic irrigations, and attention to any focal infection may prove of distinct value. This class needs no examples. It is mentioned because a realization of the handicap from focal and especially intestinal toxemias in pronounced systemic goitre may aid materially in reducing mortality.

Illustrations:

Class 1 (a). T. M., female, married, 36 years of

age. This patient consulted me June 12, 1917, for hemorrhage from the bowels, vomiting with blood, and fainting spells. Eleven years earlier, in another city, she had had a gastroenterostomy for "duodenal ulcer."

On examination, I found the patient emaciated, with small breasts and atrophic thyroid gland. There was distinct tenderness over the head of the colon and along the line of the appendix. A diagnosis of chronic intestinal stasis was made.

Operation was performed July 3, 1917. The omentum was adherent to the old abdominal scar; the gallbladder and transverse colon were a mass of adhesions. There was a broad ileo-pelvic band. These conditions were corrected.

For some months after operation, medical treatment was required—digestives, intestinal antiseptics, etc., but finally the patient's condition improved and the breast tissue and atrophic thyroid gland became more nearly normal in size. November 7, 1921, her physician reported that there were absolutely no abdominal symptoms, the patient was in the best of health and the thyroid gland, while still small, was slowly increasing in size.

Class 1 (b). R. A., female, married, 36 years of age. For eight years prior to operation this patient was subject to attacks of bloating, severe abdominal pain, nausea and vomiting, with marked constipation. The attacks were usually from a few days to a month apart and lasted eight or ten hours. The patient's neck was much enlarged, there was considerable pulsation and the eyes were very prominent.

March 29, 1916, operation was performed for mid-group stasis. Marked ileo-pelvic bands and a cecum rotated at the terminal ileum were found. The ascending colon was twisted over to the other side, just below the hepatic flexure, and across this point was a mass of adherent omentum. Where the cecum rotated inward, when the patient was erect, there was a point of almost complete obstruction. These conditions were corrected.

October 28, 1916, the patient reported that the abdominal pain and nausea, the indigestion and constipation had disappeared. On examination, the goiter was found to have diminished in size to such an extent that operation for this condition was no longer considered necessary.

Class 2. F. G., female, single, 24 years of age. Patient consulted me May 29, 1917, for palpitation of the heart, prominence of the eyes and great nervousness. She had suffered from a severe nerve strain and the hyperthyroid symptoms had developed suddenly.

On examination, systolic murmur at the base of the heart, enlargement of the left ventricle, intention tremor, a lumpy condition of both breasts and a bilateral goiter was found. There was marked ileal tenderness and much bloating of the abdomen. However, the abdominal symptoms were not such as to warrant surgical procedure. A trial of medical treatment was decided upon and digestives, rest, a sup-

porting belt and brassiere, tonics and intestinal antiseptics were prescribed. The importance of a free evacuation of the bowels daily was impressed upon the patient, who was advised to report for examination at intervals.

October 17, 1917, the breast lumps were softer and smaller and the goiter had so lessened in size that operation was considered unnecessary.

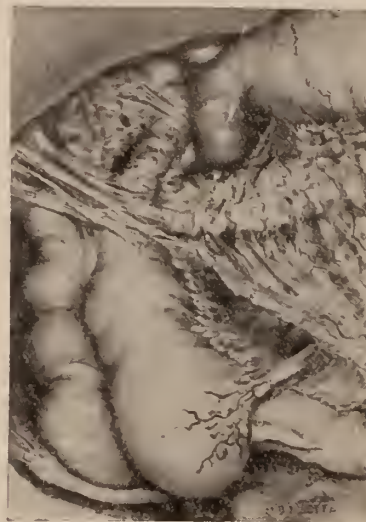


Fig. 1. Illustration for Class 3 (a)—

Obstruction of ascending colon by bands. Enlarged cecum. Chronically inflamed appendix, full of fecal matter, held tightly by bands.

Class 3 (a). B. N., female, married, 35 years of age. This patient consulted me February 12, 1917. She was suffering with severe pain in the epigastrium and vomiting. There was exquisite tenderness in the right iliac region and over the gall bladder. Her hair was falling out, her finger nails were brittle and her breasts fatty, large and dependent. Her weight was 203 pounds. It was evident that the patient was suffering from chronic appendicitis, a disturbance of the internal secretions and much autointoxication.

X-ray examination showed esophageal diverticulum and intestinal bands and adhesions constricting many points.

Operation was performed May 26, 1917. There was a marked constriction of the ascending colon by a tight band across the gut. Adhesions covering many other points in the intestine and a chronically inflamed appendix were removed.

The autointoxication had been present for many months and the thyroid gland had become atrophic to such an extent that correction of the intestinal condition only partially relieved the hypothyroidism and it was necessary to institute thyroid treatment and continue it as required. However, the patient no longer suffers from the abdominal pain and tenderness or from the vomiting. She has lost fifteen pounds and by taking a moderate amount of thyroid daily, leads a more comfortable and normal existence.

Class 3, Case 2. N. M., female, married, 38 years

of age. In February, 1910, when the patient first consulted me, she was very fat and flabby; suffered from constipation, had much pain and distress in the abdomen and prolonged menstruation.

Examination showed chronic appendix, stasis bands and umbilical hernia. The neck was very fat but the thyroid was decidedly atrophic.

Operation was performed March, 1910. An omental mass from two hernial sacs, each the size of a hen's egg, in the abdominal wall, a chronically inflamed appendix and many adhesions were removed. The abdominal incision was through 8 cm. of adipose tissue.

After the removal of the intestinal bands and adhesions, the patient improved and was then placed on thyroid. In 1919 she became careless and left off the thyroid. January, 1921, she again consulted me, for a lump in the right breast. The patient thought she had hit the breast, about a year earlier, and that the lump had slowly developed. Examination showed that the patient was again suffering from autointoxication and hypothyroidism. She was given laxatives, intestinal antiseptics and thyroid. Six weeks later, the lump in the breast was softer and smaller and eventually it disappeared entirely. The intestinal treatment softened and lessened the size of the lump but the thyroid was required to fully remove the abnormal condition of the mammary gland.

Class 4. A. S., female, single, 24 years of age. This patient consulted me May 10, 1916. She had a large goiter; there was pulsation in the neck and the eyes were prominent. The patient complained of soreness and pain over the appendicular region.



Fig. 2. Illustration for Class 4—

Cecum tightly bound by bands and adhesions. Terminal ileum partially obstructed by bands, gut above dilated and wall thickened. Chronically inflamed appendix, full of fecal matter, but free.

X-ray showed intestinal bands and adhesions, and operation was performed June 10, 1916.

The head of the colon, with very short mesentery and terminal ileum were found to be apparently congenitally retroposed and attached to the posterior wall with a broad and massive attachment, binding

the terminal ileum down in the cavity of the false pelvis. The appendix was subacutely inflamed and filled with material. There was accentuation of the last kink of the pelvic colon. These conditions were corrected and the patient's recovery was uneventful.

Four months after the operation there were no longer any abdominal symptoms and the goiter had completely disappeared. The patient reports that at present, November, 1921, she is in excellent health.

Class 5. C. W., male, married, 47 years of age. This patient consulted me February 19, 1921, because of great difficulty in swallowing. Five weeks earlier he had noticed a lump, the size of an orange, in his neck. The patient exhibited cardiac symptoms, and considerable intention tremor.

Operation was performed February 27, 1912. The right half of the thyroid gland and the isthmus were removed. Pathological report showed marked vascularity and multiple cysts containing colloid and calcareous degeneration of the blood vessels.

The patient's recovery was uneventful and there has been no return of the goiter or the hyperthyroid symptoms. It is needless to add that where degeneration is present, surgical procedure is absolutely indicated.

Class 6. L. B., female, single, 24 years of age. This patient consulted me February 26, 1917. She had a large goiter and enlargement of the heart with systolic murmur at the apex and base. She was very nervous and complained of continued diarrhea. There were enteroptosis and distinct ileal tenderness. X-ray examination showed a kinked terminal ileum and the cecum in the pelvis. The appendix was kinked. The lower portion of the descending colon and the ileac sigmoid were atonic.

The patient suffered so much discomfort from pressure that thyroidectomy was performed and the right half of the gland and isthmus removed. However, the abdominal symptoms still caused great distress and February 9, 1918, operation for intestinal stasis was performed. Marked diverticulated cecum, ileo-pelvic bands and a chronically inflamed appendix were found. The cecum was plicated and put back in normal position: the ascending colon anchored and the appendix removed.

The patient's recovery was uneventful and in January, 1921, she reported that there had been no return of the goiter or the gastro-intestinal symptoms.

Despite the fact that many early cases of goiter yield to medical treatment, marked systemic goiter is usually a surgical disease. When the gland can be detached without undue difficulty it is generally ablated in continuity with the extirpated lobe. Almost two-thirds of the gland may be removed without unduly curtailing the parenchyma. Provided total extirpation is avoided, and a sufficient amount of the thyroid left, a cretinoid condition does not result. One

fourth to one-half of the gland seems all that is required for normal functioning.

Within the last few years goiter seems to be on the increase in this country. Whether this increase is due to the recent upheaval of war—the intensity of the struggle and the hardships endured—or to other causes it is impossible to state with exactitude. It is well known that hyperthyroidism sometimes appears quite suddenly in an apparently normal person, as the result of a nerve strain or a great emotional stress. Hyperthyroidism developed in a large degree among the Russians who witnessed the Kishineff massacre and among the victims of the San Francisco earthquake. Since it is evident that hypothyroidism is on the increase, it is the more essential that we should emphasize the necessity for preventive treatment.

Hyperthyroidism, with or without obvious goiter, is frequently present in women during puberty, at the catamenial period and throughout gestation. This condition usually clears up when these periods are past, if there is no added overloading of the system with toxic poisoning and if no excessive demands are made upon the organism during these times. In a large proportion of cases the patient may be restored to a normal state by rest, topical applications of cold to the neck, the use of sedatives and other hygienic measures. However, if care is not exercised during these periods, the condition of hyperthyroidism may be prolonged with distressing result and the gland permanently injured.

While conceding the necessity for early operative procedure in cases of pronounced systemic goiter, we need to realize that there are lesser degrees of the condition which yield to medical measures. All possible toxic factors of each case should be investigated—since any one of these may have a definite bearing on the functioning of the glands, especially the thyroid gland. Early recognition of toxic conditions, whether from tonsils, teeth, sinuses or intestinal canal, may prevent many goiters from reaching the stage where surgery alone can be of benefit. Attention to all toxic phases of the system and a recognition of the importance of preventive regime may safeguard the future of the patient by lessening ultimate pathology and the liability of future conditions demanding surgery.

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ACIDOSIS IN SURGICAL ANESTHESIA*

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It is a difficult thing to correctly and definitely define acidosis. According to Lawrence J. Henderson, we are fully justified in saying that it is a state of diminished bicarbonate in the blood.

Acidosis and its relation to general anesthesia has recently been investigated by a number of workers whose deductions, some of which are recorded below, appear to be quite coherent. Very little work has been done however to determine the incidence and degree of acidosis under local anesthesia and it was with this end in view that the present work was begun. Circumstances intervened which prevented carrying on the work to the extent at first desired but it seems proper to present it at this time if for no other purpose than to stimulate further investigation in this field.

There are several contributory factors which lower the alkalinity of the blood and tend to produce an acidosis in the body after a surgical operation. Among the most important may be mentioned starvation, shock, the pathological condition present, and the anesthetic. It is held by some that in all cases there is a predisposing factor of which we have little or no knowledge, but which is intimately bound up with the functions of the liver, and the metabolism of fats and carbohydrates. These men regard the anesthetic as the detonator.

The rapid diminution in the circulating glycogen in the blood caused by starvation requires that either proteid or fat supply the required energy to the body. This oxidation of proteid or fat in the absence of available carbohydrate, as has been repeatedly demonstrated, results in an increased formation of acid bodies in the blood stream.

Surgical shock is usually accompanied by a diminished capacity of the blood for combining with carbon dioxide. Cannon¹, after making a number of observations on soldiers who had been wounded in battle and were suffering from varying degrees of shock, expresses the opinion that the alkali reserve is below normal in shock and

*Read at 71st annual meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

that the reduction is in direct proportion to the degree of shock.

Any interference with one or more of the organs of acid elimination may cause an acidosis. Pathological processes which involve such organs as the liver, kidneys and lungs may be accompanied by a diminished power of the body to neutralize acid by-products. Hence in many surgical conditions, there is already an existing acidosis which is augmented at the time of operation by various factors, each of which contributes its part in lowering the alkalinity of the blood serum.

One of the most important of these factors is the anesthetic. Various authorities have for a number of years stated that the inhalation anesthetics produce an increase in the acid by-products in the blood. In 1906, Brewer and Helen Baldwin² showed that acetone is nearly always present in the urine during the first 24 hours after administration of either chloroform or ether, and occasionally diacetic acid appears on the second or third day after. H. G. Wells,³ in speaking of conditions, other than diabetes, that are characterized by an acid intoxication, states: "Most prominent of these so-called acid intoxications is that following a few days after anesthesia, particularly with chloroform." E. Graham⁴ states: "The phenomenon of narcosis is always accompanied by a condition of more or less severe asphyxia of the tissues, even if the frequency and depth of the respirations of the narcotized subject are normal. * * * J. Loeb has shown that an asphyxiated tissue always becomes acid. It is not surprising, therefore, that every surgical anesthesia induces many of the signs of an acid intoxication. As is well known, also, an existing acidosis is always aggravated by a surgical anesthesia."

Chloroform is doubtless the greatest offender because of the formation of the mineral hydrochloric acid. It appears, however, that ether and nitrous oxide are not exempt, although they perhaps lower the alkali reserve to a lesser extent.

Of the several methods for determining the degree of acidosis, that of measuring the concentration of blood bicarbonate has been most frequently employed. Many observations to determine the influence of the general anesthetics, mainly ether, on the blood bicarbonate or alkali reserve have been made both on patients after

surgical operations and on animals which have been anesthetized but not operated upon.

Austin and Jonas⁵ observed the alkali reserve of the blood before and after ether anesthesia for various surgical operations in sixteen patients and found a maximal decrease of 10 volumes per cent. The reduction seemed to be proportionate to the duration of the anesthesia and was greatest at the close of the anesthesia.

A number of observations were made by W. H. Morris⁶ on patients before and after gynecologic operations and it was found that the carbon dioxide combining capacity of the blood was usually but not invariably lowered and it appeared to him that the reduction did not bear any relation to the duration of the anesthesia. A reduction as great as 22 volumes per cent was noted in one patient while the least recorded was 0.4 volume per cent. Morris also found that an intravenous injection of sodium bicarbonate before operation in 10 patients caused the reduction to be less marked.

Reimann and Bloom⁷ determined the change in the alkali reserve in 60 operative patients, 59 of whom were given ether and one who was given nitrous oxide. The average observed fall in bicarbonate was 15.9 volumes per cent. They made the additional interesting observation that the patients who showed the greatest reduction in carbon dioxide capacity showed a much higher percentage of post-operative symptoms, such as rapid pulse, restlessness, gas pains, etc.

To eliminate the contributing factors mentioned above, which in themselves may produce a decrease in the alkali reserve following a surgical procedure, William S. Carter⁸ observed the effect of ether anesthesia produced experimentally in animals. He concludes: "Ordinary ether anesthesia, without any of the contributing conditions that attend surgical operations, causes a distinct decrease in the alkali reserve."

It is not meant to infer that the decrease in the alkali reserve of the blood due to the anesthetic is such that it usually attains dangerous proportions. From the experiments it appears that the decrease does not fall below the normal limit in most cases. For instance Reimann and Bloom found that in only 16 per cent of their patients did the blood bicarbonate fall to below 50 cc., which is considered the lowest normal limit. However, in these cases it seems logical to believe that the reduction of blood bicarbonate

below normal is a factor which would not favorably influence the patient's recovery.

Experiment. The following experiment was performed to ascertain, if possible, whether or not novocain, the most widely used local anesthetic, produces a decrease in the alkali reserve of the blood. The work was done on 38 surgical patients in the clinic of Dr. Robert E. Farr, of Minneapolis, the operations including such major procedures as herniotomy, hysterectomy, nephrectomy, cholecystectomy, thyroidectomy, appendectomy, etc. A 0.5 per cent solution of novocain with adrenalin, 4 drops of 1 to 1000 solution to the ounce, was used as the anesthetic in all cases.

The blood was drawn before operation from a vein in the bend of the elbow, with care to prevent stagnation. To prevent clotting, powdered potassium oxalate was used. After centrifuging, the plasma was saturated with alveolar carbon dioxide and then analyzed for carbon dioxide with the apparatus and according to the technique of Van Slyke.⁹ In order to minimize error, two determinations were made on each sample of blood, and the average taken as the final reading. Second and third samples of blood were drawn after the operation and similarly analyzed to note any change in the alkali reserve. This was done at various intervals, in some instances as late as 48 hours after operation. The results are represented in the accompanying table.

SUMMARY

Not a few of the cases were poor surgical risks as they had been referred to the clinic for operation under local anesthesia, it being deemed inadvisable to give them ether. Some of these showed a low alkali reserve before operation.

Of the 38 patients, 22 or 58 per cent showed no decrease in the blood bicarbonate after operation.

Sixteen, or 42 per cent, showed a decrease varying from 1.5 to 10 volumes per cent, the average decrease being 4.5 volumes per cent. In all cases, however, the average fall was 1.9 volumes per cent.

It is undoubtedly true that in local anesthesia, starvation and shock play less important roles as contributory factors in lowering the blood bicar-

bonate. Shock is less common than when a general anesthetic is used and frequently the local anesthesia patient is able to take such nourishment as to materially diminish the starvation.

TABLE

Case	Operation	Amount of Novocain Used	Carbon Dioxide Capacity of Blood Before Operation	Carbon Dioxide Capacity of Blood After Operation	Decrease in Volume Per cent
1.	Dislocation Outer End Left Clavicle	oz. 3	63	65	63 ..
2.	Chr. Endometritis, Cyst, Bartholin Gland	2	52	53	55 ..
3.	Exophthalmic Goitre	2	51	52	54 ..
4.	Cholecystectomy	oz. 5½	57.5	51	52 6.5
5.	Herniotomy	oz. 4	60	52	61 8
6.	Suspension, Appendectomy	oz. 4	40	46	46 ..
7.	Hysterectomy	oz. 4	48	52	51 ..
8.	Cholecystectomy	oz. 3	53	51.5	52.5 1.5
9.	Myomectomy, Rectopexy	2	56	61	66 ..
10.	Appendectomy	oz. 3	60	63	64 ..
11.	Appendectomy	oz. 3½	66	60.5	61.5 5.5
12.	Appendectomy and Suspension	oz. 3	63.5	59.5	61 4
13.	Nephrectomy	oz. 2½	62.5	57.5	60 5
14.	Appendectomy and Suspension	oz. 3	72	67	69.5 5
15.	Cholecystectomy	oz. 2	56	52.5	54 3.5
16.	Cholecystectomy	oz. 2½	51	56.5	54 ..
17.	Prostatectomy	oz. 2½	58	48	46.5 10
18.	Appendectomy	oz. 4	65	65.5	70.5 ..
19.	Perineorrhaphy, Colporrhaphy, Suspension	?	61	59	59.5 2
20.	Dissection of Glands	?	56	60	60.5 ..
21.	Appendectomy	oz. 3	64	66	64 ..
22.	Nephrostomy	oz. 2½	56	54	53.5 2.5
23.	Herniotomy	?	68	60.5	66 7.5
24.	Nephrectomy	oz. 2½	55	50	51 5
25.	Hysterectomy	oz. 2	53.5	51.5	53 2
26.	Appendectomy	oz. 3	54	54	56 ..
27.	Varicocele	oz. 2	57	59	57 ..
28.	Herniotomy	oz. 3	59	60.5	61 ..
29.	Suspension, Amputation Cervix	oz. 4	56	56	59.5 ..
30.	Cholecystectomy Appendectomy	?	54	56	54.5 ..
31.	Cholecystectomy	oz. 4	52	50.5	52.5 1.5
32.	Gastroenterostomy	?	67	71.5	74 ..
33.	Appendectomy	oz. 3	58	60	62 ..
34.	Hemorrhoidectomy	?	58.5	59	59 ..
35.	Herniotomy	oz. 4½	59	56	58.5 3
36.	Suspension Right Salpingectomy Right Oophrectomy App.	oz. 4	63	66.5	66 ..
37.	Cholecystectomy	oz. 5	56	56	56.5 ..
38.	Appendectomy	oz. 4½	51	55	54.5 ..

CONCLUSION

Since the number of cases studied is relatively small it is only proper to be conservative in drawing conclusions.

A comparison of these results with those obtained by the other investigators who have been quoted above would seem to indicate that the decrease in the alkali reserve of the blood following local anesthesia is less frequent and less

marked than that following general anesthesia. This is probably due in part at least to the fact that local anesthesia diminishes the contributory factors which accompany operations and which tend to bring about an acidosis.

It would, therefore, seem advisable in cases where the alkali reserve of the blood is low before operation to use local instead of general anesthesia.

Finally, it seems that the subject is worthy of further proof and it is hoped there will be further investigation made.

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2. Jour. Biol. Chem., 1906 (1), 239.
3. Chemical Pathology, H. G. Wells, p. 457.
4. J. A. M. A., Nov. 17, 1917, p. 1666.
5. Am. J. M. Sc., 153: 81, 1917.
6. J. A. M. A., 68: 1391; May 12, 1917.
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9. Jour. Biol. Chem., 1917, XXX, 347.

DISCUSSION

Dr. Edward Bowe, Jacksonville: We are certainly under obligations to the doctor for this unusual and remarkable paper. This paper is unusual because it is a paper on surgical anesthesia presented before this Section, and second, it is remarkable because it is a paper on surgical anesthesia presented by a medical man.

I am a member of your legislative committee and it is my duty to appear before the legislature over here and tell them the difficulty of having an untrained person treat the sick. I am going to plead guilty, but it is high time to turn our thoughts in a different direction. Here is a man who undertakes an operation under general anesthesia and he at once takes the life of the patient because the person administering the anesthesia did not know how to do it. What are the conditions in many of the large clinics in this country? Those of you who know my early training know I was in a large surgical clinic. Do you know that a large part of the anesthetic procedure is in the hands, not of a medical man but of a nurse? I want to say to you, and I have been a teacher of nurses, that it is time that we pleaded guilty. How are we going to educate young men if we are going to turn the patients over to nurses? I am your representative and Dr. Humiston knows it has been my duty to use forceful language before the legislature, decrying against those who by lack of training and with little knowledge care for the sick in this state. It is my strong conviction after serious study that the American College of Surgeons should take this matter up and no matter who the man is should deal severely with him because we hold the future of our profession in our hands.

THE PSYCHIC FACTOR IN ANESTHESIA*

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INDIANAPOLIS, INDIANA

My aim in this paper is to show that in psychic domination we have an invaluable adjunct in medical and surgical practice, and to maintain that its more extensive employment would contribute to the advancement of medical and surgical art and the common welfare. To limit the scope of discussion, to be concrete and to limit my remarks to personal observations, only one phase of this broad subject will be considered. It is an important phase, and is representative of the others. It is the problem of the psychic factor in anesthesia, especially local anesthesia. I shall attempt to make my point by a review of data of practical significance.

It is of the utmost importance to regard an operative surgical undertaking, not simply as a technical, manual performance beginning with the incision and ending with an aseptic dressing, but rather as comprehending every step from the surgeon's introduction to the patient to the end of post-operative follow-up correspondence.

It is always desirable and, as a rule, possible to impart to the patient at the first meeting an enlivening sense of security, to allay to some extent the phobias and delusions, and to establish confidence by what Clifford Allbutt calls the "personal ascendancy of the physician."

The most successful surgeons instinctively (which as Schofield notes, means simply by the action of the unconscious mind) adapt themselves in voice and manner to the needs of the patient before them. This natural gift is without doubt a great secret of success.

As to the operation itself, gentleness in its performance should have a broad interpretation. Thus, the transportation of the patient to the operating room should be made pleasant and comfortable, in so far as it is possible to do this.

The terror of the operating room and the bad impression which the patient receives, owing to the observation of everything connected with the operation, are removed or eliminated, if a mild, preoperative narcotic be employed.

In the operating room the patient should find all those conditions which conduce to a quiet, tranquil "mood." This embraces many things; for example, the temperature, which should be so

*Read before Chicago Medical Society, November, 1921.

gauged as to attract no notice, being neither uncomfortably low nor annoyingly high. The illumination, if mellow, conduces to tranquillity. Too strong a light will irritate as definitely as the noise of one scratching upon glass. A strong light, even if natural sunlight, is not always a good light and intensely brilliant illumination annoys the patient as well as the surgeon. It is not enough just to have light in the operating room. Light is a raw material. What is needed is illumination, which is light controlled and directed, not merely spilled around. Raw light spilled into a room inevitably does two bad things—it makes glare and it makes black shadows. Both glare and shadows disturb the sensorium and interfere with vision.

In artificial illumination blue glass surrounding the source of light, correctly directed, provides a soft white, diffused artificial sunlight, most agreeable to surgeon and patient.

An atrocity of the operating room is the glaring white wall. Every layman knows how the glistening snow destroys visual efficiency and yet for years we provided this blinding white glare, with its disturbing reflexes, as an essential feature of the surgery. Turn a light full on a mirror and all one sees is a dazzling glare. Light reflected from a glossy white wall has the same effect—the glare shines directly into the eye and dazzles the little cameras of the retina—the pupils contract and the eyes are strained. The soft flat, light gray of the sky, if used on the walls without gloss or varnish, contributes to a restful "mood."

While it may arouse suspicion in a patient about to undergo an operation under local anesthesia to cover the eyes so that nothing is seen of the operating room, it is usually agreeable to the patient to have the eyes covered with a piece of cool, moist gauze during the operation itself.

If the operating table is under a skylight, or under the source of artificial illumination, this step of covering the eyes conduces directly to repose and inclines the patient's thoughts away from the surgical operation itself.

The ventilation of the surgery should receive interested attention. Fresh air in abundance is a vital necessity. Assistants and visitors crowding over the patient, consuming the major part of the available oxygen, do harm. All of us have seen patients in actual air hunger as a result of this indiscretion. Obviously leaning upon the

patient's chest as practiced occasionally by operator and assistants during general anesthesia will be intolerable in the case of a conscious patient. The same oppression may be caused by allowing many heavy artery clamps to remain on the neck or chest.

One learns at the beginning of the use of regional anesthesia that to place the patient upon a hard metal table is an unnecessary cruelty. If the table is not made soft by pillows, there will be complaint of discomfort, and this can be corrected without, in any way, impairing the aseptic technic, even of those who, before operating, are accustomed as Dr. Mayo says "to incant the pagan gods of asepsis." A comfortable posture can always be provided, if the surgeon so wills.

Another source of annoyance and irritation to the patient is noise. The dropping of a pan, the clanging of instruments or the blowing off of an autoclave during regional anesthesia is no less than a crime. Likewise, talking in the operating room should be kept at the irreducible minimum, *excepting* that engaging and diverting conversation between the patient and a low voiced nurse or assistant may be helpful. This is an operating room note. Several of our patients have asked us not to talk. At the Mayo clinic, as you will recall, no visitors are present while anesthesia is being induced. Regional anesthesia is put to the severest test when used in the teaching clinic. It is favored by soft voiced, well behaved assistants and silent visitors.

The old motto of the operating room, "*Noli Loqui, Noli tangere*," deserves firm observance—and yet it is doubtful whether uncanny silence is good, rather let us ask that all speech be low in tone and limited to those directly concerned in the work, as Chutro demanded in his hospital in France.

It is, I presume, clear that the use of cocaine alone or as an adjuvant to novacaine may militate not infrequently against the preservation of a serene state of mind, I have observed this in supra-pubic prostatectomies after dropping cocaine into the bladder to anesthetize the mucosa. The stimulation of cerebration, the sharpened special senses, the loquacity and anxiety very promptly coming into evidence as embarrassing agencies. The lesson here is not far to seek. It is to avoid the use of cocaine wherever possible.

It is a profitable expenditure of time and patience to guard against the infliction of even the

slightest pain, at the beginning of the induction of local anesthesia, and to this end it seems worth while to blanch the skin over a very small area with an ethyl chloride spray before the first introduction of the needle, or if the skin be loose enough, to benumb it by pressure between the thumb and forefinger of the operator's left hand, the first puncture being made with a small hypodermatic needle into the skin thus compressed. It is the painstaking attention to such minor details which establishes confidence and sympathy and renders this work fairly fascinating to the patient and surgeon.

It is in my experience undesirable to question the patient at frequent intervals as to whether pain is being perceived. This applies especially in the case of suggestible individuals. The patient may thus be suggested into pain perception. If we attempt to force pain perceptions to disappear, they appear, just as when we attempt to force sleep consciously we remain sleepless; if we attempt to force ourselves to be pleased we only become annoyed. The more force the superconscious will attempts to exercise the greater will be the defeat. It is much better to suggest the patient into channels of thought remote from pain, by the artful employment of apparently impromptu remarks upon subjects quite foreign to the operation, or to declare that the pain is disappearing. With suggestible individuals the mere reiteration that there is no pain aids anesthesia. It is also of importance that the surgeon show no anxiety or concern. Obviously the patient is surely thereby suggested into alarm or panic.

One need hardly mention the suggestion value of complimenting the patient upon the display of courage and confidence, upon the triumph of their good judgment over the fears and misgivings of friends and relatives as to the possession of the requisite qualities of patience and fortitude. The surgeon does wisely to assume the big brother relation or the benign attitude of the father adjuring the little son to take his medicine "like a man." Reassurance under some circumstances may amount to deception, but this is justifiable and, moreover agreeable to the patient for, as Barnum maintained in his oft quoted practical philosophy, "*populus vult decipi*."

Recourse to music as an adjuvant to provide for the operating theatre the tranquil mood, and for the patient the gentle abstraction so desirable

in surgical undertakings upon conscious individuals, was suggested by the expressed wish of patients that the soft seductions of music might be employed to take the thoughts of the patient from the operation, providing this could be accomplished without turning the operator's thoughts from the businesslike, practical matters with which they of course must be engaged.

Realizing that this subject is obviously quite refractory to analysis, and with trepidation appreciating how readily such a discussion might drop to the plane of the absurd, but basing the statement on personal experience, I believe I can say with the restraint of decent conservatism, that music which caresses the ear and soothes the fretted nerves of the patient need not becloud the clear thinking, nor hinder the technical precision and thoroughness of the operator. Combarieu says that music is a special act of the intelligence intervening in the chaos of emotional life to bring it into order and beauty.

The patient is, in so far as cerebration is concerned, to some extent carried away by the music, drifting about in a shadowy world of sensations and memories. Pleasant stimuli neutralize painful stimuli. Other sensations than those of the operating room are provided, for, as Helmholtz says in the first pages of his book, "in music sensation is everything."

It can hardly be doubted that music influences the emotions, stimulating—depressing—soothing—irritating. It will be admitted that music induces reactions in the organism as, for example, the shuddering of the periphery which is supposed to be a sign of the impression of the sublime. It is surely true that music induces psychic and physiologic reactions—that it affects the respiratory, circulatory and nervous systems. If a Schumann lied or a nocturne of Chopin or a soothing American melody played, if you please, upon a victrola in an adjoining room *does* in fact in selected cases induce mental repose and nerve and muscle relaxation on the patient's part, it is *not* absurd to make use of it, providing it does not aberrate the thoughts of the surgeon or his aids. If the surgeon is not at all musical, the plan might fail and of course it is not in disparagement of the culture and intellectuality of the surgeon to presume that many are not so musical as was Billoth, the friend of Mozart, who was as much at home with his violin as with his microscope and scalpel. Napoleon the first said

that music disturbed his nervous system and Grant hated music.

It is desirable that these remarks should not be interpreted as an attempt to encourage a therapeutic measure based upon music. That of course would amount to sheer nonsense. History abounds with instances of attempts to cure disease with music, but these attempts were doubtless based upon the superstition that in the sick person dwelt an evil spirit which music put to flight. However, I think one is safely remote from such superstition in taking the position that if the patient undergoing operation with regional anesthesia feels that appropriate music will divert the mind and relax the body, then the surgeon does a sensible rather than a theatrical or absurd act in providing it.

Mesmer, the ridiculous lilac robed hierophant and quack of Vienna, made use of these subtle influences. Richly stained glass windows shed a dim religious light upon him as he approached his patients and aelolian harps sighed the gentlest and most soothing strains from distant chambers. Mesmer dreamed that he could fool a multitude of people for a time and get rich. And he made the dream good, but let it be said that although Mesmer was an out and out fraud, there was a tithe of truth in his confused theories and this truth can be used today for the good of humanity. Coue, according to Baudouin, "was able to extract from these fantastic theories such serious, practical and solid content as they possessed, but he brushed aside all that was nothing better than puffery and humbug, and he likewise rejected the mystical postulates which underlay some of the theories." He was in search of a thought which he finally grasped during the closing years of the nineteenth century. That is, "he discovered in autosuggestion the powerful and widely diffused force of which hypnotic suggestion, the only form of suggestion hitherto studied in medicine, is but one of many applications." Heterosuggestion and autosuggestion are not denied being most powerful curative agencies by any except those who are totally ignorant of the history of the subject.

It can hardly be denied that the personality of the surgeon enters deeply into the consideration of this subject. He must rule the patient with the rod of confidence and sympathy. His mind must direct and control in the greatest measure

possible the mind and body of the patient. There is no quackery, no necromancy about this. It is merely appreciation of what DeFleury calls the pathology and *hygiene* of the intellect.

Even a bare reference to the influence of the mental factor may be distasteful to practical physicians and surgeons who insist that their art rests upon a very material basis but who, nevertheless, make frequent use of this factor vaguely and often unconsciously. We prize too much our freedom from philosophies and mysteries to look upon that which distracts us from our physical studies as anything better than knavish quackery. "Philosophy in medicine is not the fashion now. The stern, practical and scientific character of the medical school training, the mechanical and chemical plane on which our physiologies move; the strictly material nature of modern pathology all tend to foster the belief that any consideration of the psychic in medicine is archaic in character and futile in results."

Nevertheless, though one may not be able to measure or understand it fully, one comes daily to the belief that a fair valuation of the influence of mind over body and its relation to the psychology of the operating room is of especial importance, for example, in the employment of regional anesthesia. "Medical psychology belongs to our whole profession and surgeons cannot ignore it." (Chrichton Browne.)

Tuke says: "I want medical men who are in active practice to utilize this force, to yoke it to the chariot of the son of Apollo and rescuing it from eccentric orbits of quackery force it to tread with measured steps the orderly paths of legitimate medicine."

In the *Journal of Surgery, Gynecology and Obstetrics* of December, 1906, Alice Magaw, a recognized authority in anesthesia, says:

Suggestion is a great aid in producing a comfortable narcosis. The anesthetist must be able to inspire confidence in the patient, and a great deal depends on the manner of approach The secondary or subconscious self is particularly susceptible to suggestive influence; therefore, during the administration, the anesthetist should make those suggestions that will be most pleasing to this particular subject. Patients should be prepared for each stage of the anesthesia with an explanation of just how the anesthesia is expected to affect him—"talk him to sleep," with the addition of as little ether as possible.

Munroe in his book says that:

The significance of the employment of sugges-

tion as an adjunct to the administration of anesthetics goes far beyond the danger to the patient directly and immediately during the course of the operation. The surgeon who does not have his patient's reserved energies weakened and exhausted, and the patient's brain and nerve centers presiding over all physiologic processes so seriously and permanently injured on account of the employment of suggestion to obviate the necessity of such enormous quantities of the anesthetic—simply has more recuperative power left in the cells of the organism of his patient upon which the hope for a favorable outcome from a major operation is based, and surgical operations upon patients with the minimum amount of poison from the anesthetic to combat are unquestionably attended with better results than those in which larger quantities of the drug are used.

Perhaps we have been too much inclined to think of psychic influence upon the sick as belonging strictly to the practice of quackery. Schofield (*The Force of Mind*, p. 5) asks why in the name of Aesculapius should the medical profession have to look to a quack for boldness and force. Is there to be no dignity and authority, no courage and aggressiveness in a physician's personality? He asks whether virtue does not lie in the boldness of the quack, in the force of assertion, or in both.

Though the influence of mind over body is everywhere seen and felt, it is neglected or ignored in operating rooms and at sick beds. Among the most successful physicians "Our best have owned the rare dramatic power, which gives to sympathy its lifting hour." (S. Wier Mitchell, *The Physician*.) Coleridge said, "He is the best physician who is the best inspirer of Hope."

Muensterberg remarks:

The time is ripe for a systematic introduction of psychologic studies into every regular medical course. It is not a question of mental research in the psychology laboratory, where advanced work is carried on, but a solid foundation in empirical psychology can be demanded of every one. The student ought to have as much psychology as physiology.

Llewellys F. Barker tells us that:

America, so far ahead in many subjects of medical instruction, is no less than fifty years behind Europe in this particular.

A personality, gentle but strong and sincere, which takes the patient into its sympathetic embrace is almost, if not quite, as desirable in a surgeon as professional ability and manual skill. Temperament is no less important than learning. We realize how surely the gentle personality

reaches and controls the lower animals. I have a friend, a doctor's wife, who can go into her garden and pick up a robin or a wren. The human animal responds no less readily to the appeal of that nature in which the stroke of gentleness combines with the voice of sympathy and sincerity.

Crile, perhaps more than any other, has awakened in us a respect for personality in surgeons. His whole scheme of association, it seems to me, is based on personality, a program of gentleness, beginning with the first inspection of the patient and continuing until the patient leaves the hospital. A radiant, magnetic personality and buoyant spirit in the physician can do much at the outset to overcome the despair of hopeless patients with mind made up to die and to carry them through the anxious, doubting period of convalescence.

Especially is this quality in the physician necessary in the treatment of enlightened and self-respecting people. It begets a reciprocation of that respect which such people feel is due them. They positively refuse to be driven, but it is only an evidence of their high intelligence that they are willing to be led for their own good by the skillful direction of a strong, sympathetic, conscientious physician.

A sensible display of tact and diplomacy will enable a physician to win the confidence of a patient, and secure the co-operation so essentially necessary for the best results, whereas being blunt would render him utterly helpless.

It is a great help to a physician to be able to lay hold of people and induce them to help themselves to get well. We all help or hinder the recovery of our patients, far more than many realize, by the way we deal with them. We unconsciously use suggestive therapeutics at every step in our routine work.

There is no doubt that the imparting of hope, the radiation of cheer, the employment of patience and forbearance on the surgeon's part impose a tax upon him. The surgeon who habitually uses local anesthesia must give much of himself to his patient. The method can appeal only to those who are willing to share some of their surplus nervous energy with their patients, and who are willing to emphasize all of the apparently slight factors of kindness, precision and gentleness, and to proceed with the caution of a serpent and the patience of Job. It is in no way related to surgical showmanship. Now a few words in respect of the concrete applications of psychic domination and regional anesthesia.

I believe it does not imply a prejudiced view-

point to say that whereas regional anesthesia is only one of many useful methods of suspending pain perception; it is, nevertheless, one of the most useful of these methods and, further, that its scope of usefulness is still not generally appreciated.

As a friend of local anesthesia, a discussion of its possibilities are, to me, more interesting than a discourse upon its limitations. Limitations it has of course, but these are less restricted than one unfamiliar with its possibilities might believe. For example, an individual with sound heart, kidneys and lungs has a better chance under general anesthesia, if extensive abdominal surgery is to be done, than if the abdominal operation be carried out under regional anesthesia, for the reason that such work can be executed more quickly and more thoroughly, if the patient is asleep; that is, inhalation anesthesia permits a more expeditious and, oftentimes, more complete operation. But, of course, not infrequently the condition of the big organs mentioned presents a distinct contraindication to inhalation anesthesia, or even spinal anesthesia with its depression of blood pressure, and then local anesthesia comes forward as a real boon, for practically every abdominal operation can be done, if need be, under local anesthesia.

In the case of goiter operations, if I may be pardoned for a dogmatic utterance, inhalation anesthesia is rarely useful. This, I believe will become the view of more and more surgeons as time passes. In this field local anesthesia has, to be sure, some disadvantages. A few times in my own experience, patients have become panic-stricken toward the close of the operation and by moving about have interfered, somewhat, with the surgeon's manipulations, rendering precise work very difficult of accomplishment. Under such circumstances the desirability of complete relaxation and unconsciousness is emphasized. This embarrassment, however, is of minor importance, as compared with the dangers of postoperative pneumonia, overtaxing of the heart, overtaxing of the kidneys, increased danger through failure to block the sensory nerve paths, resulting in the needless consumption of nervous energy as explained by Crile; injury of the recurrent laryngeal nerve, and asphyxia of any degree.

Ochsner admonishes that surgeons who are inclined to be violent in their manipulations should perform thyroidectomies under local anesthesia, with its enforced gentleness, since there is no doubt as to the likelihood of increased post-operative perversion of thyroid function, if the tissues are severely traumatized.

It has been mentioned by many men of great experience and recognized authority in goiter surgery that regional anesthesia should be employed in operations upon the very serious toxic cases only—such surgeons advocating ether or gas oxygen for the simple and mildly toxic goiters. It is not easy to understand their reasoning. If, as seems true, all are agreed that regional anesthesia is desirable when the safeguards which it provides are demanded, and if no one will contend that simple goiter cannot as a rule be operated upon conveniently and safely under regional anesthesia, then why is it not a fair deduction to say that one is justified in developing one's skill by accumulating experience in operations upon mild cases in order to be prepared to employ the regional anesthesia, where it is demanded, with the mastery which only experience can give. With experience comes patience, enthusiasm, consistency, the unhesitating manner, invented tricks and original ideas. One learns to observe psychologically, correctly and to individualize.

So far as the psychic ordeal is concerned, this in my experience has been less depressing with regional anesthesia than with general anesthesia.

It has been said that patients come to the operating room for operations under regional anesthesia in great mental distress and with badly broken general morale. My experience is perhaps not extensive enough to justify general deductions but, nevertheless, I venture to contradict this statement, for I believe the reverse to be true; that is, patients are reassured by the surgeon's promise to operate without pain and without sleep producing anesthesia. Let any surgeon ask himself the question whether he would not prefer, for the effect upon his morale, that his hernia, for example, be operated on by an experienced surgeon under local anesthesia.

It need hardly be stated here that the dread

of inhalation anesthesia is the backbone of the truss makers' business. Likewise, this same dread of general anesthesia will turn patients who otherwise would go without operation to the surgeons who make the most of the possibilities of the regional anesthesia method.

A very distinguished surgeon has recently said that he has not the time to perform prostatectomy under local anesthesia. This, I think, should be taken literally. This man, one of the most brilliant of American surgeons, is perhaps too busy to use local anesthesia for prostatectomy, although the additional time required is very slight. However, in this case, should not these old patients with defective hearts, lungs and kidneys, be turned over to those of reasonable skill who have time enough to provide for the patient the important but unappreciated safeguard given by local anesthesia. I have found that it cheers these old men to tell them that their operation can be done under local anesthesia without pain. It strengthens their morale. Like children they are peculiarly susceptible to suggestion.

I believe that the teaching of this distinguished man in relation to this particular subject is bad. *So brilliant* is the *virtuosship* of this operator, so inspiring is his personality that his visitors are thrilled by him into a state of mind in which they are prepared to believe anything he says, and in which they would give little heed to the utterances of an obscure though ardent advocate of local anesthesia. Nevertheless, if the surgeon is willing to give something of himself to his patient; to make some sacrifices of his own stamina, he can, with local anesthesia, safely operate upon a considerable proportion of prostatic hypertrophies which under inhalation anesthesia could not safely be operated upon.

Allen in his book recalls the words of Hypocrates, "divinum est opus sedare dolorem." It is a divine work to subdue pain. We have support of this in the record of the first anesthesia in which the Lord caused a deep sleep to fall upon Adam while a rib was excised. To this one might add that with the regional method of anesthesia and suggestion it is now quite human to subdue pain and mental distress in surgery, and with complete safety.

THE PRINCIPLE OF THE BASAL METABOLISM TEST.*

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The purpose of this paper is to present a clear description of the theory and principle of the basal metabolism test so that it can be easily comprehended by the general practitioner. The test has become very popular in clinical medicine during the past few years, yet comparatively few physicians understand the principle upon which it is based. Boothby states: "The basal metabolic rate is a measurement of the heat production in an individual under standard conditions; like the temperature, therefore, it is a measurement of certain heat phenomena inherent in the living organism. Just as the thermometer divided diseases into the febrile and afebrile groups, so the basal metabolic rate differentiates diseases into three fundamentally distinct and characteristic groups: those with normal basal metabolic rates (a normal heat production); those with increased rates, and those with decreased rates. The basal metabolic rate has, therefore, a greater fundamental significance than simply as a test for hypothyroidism or hyperthyroidism, although, as will be seen, a very high percentage of all abnormal basal metabolic rates are dependent on or accompanied by an altered function of the thyroid gland."

PRINCIPLES OF THE METHOD

The principle of the basal metabolism test is based upon the fact that oxygen, like other chemical elements capable of taking part in a chemical reaction, liberates a definite amount of heat when used in the oxidation processes going on in the body. By measuring the rate of oxygen absorbed by the lungs we can accurately ascertain the number of calories of heat given off by an individual and this constitutes the rate of basal metabolism.

The ratio of the quantity of CO_2 eliminated by the lungs to the quantity of oxygen consumed is called the respiratory quotient (R. Q.). This R. Q. varies slightly according to the nature of our diet. In the oxidation of fat this R. Q. is about 70:100, or .7; of carbohydrate it is 100:100 or 1. In the average mixed diet the R. Q. is somewhere between .7 and 1. It is necessary to

*Read before Adams County Medical Society, September 12, 1921.

know the R. Q., because the caloric value of a liter of oxygen, a factor which must be known, varies with the R. Q.

With appropriate apparatus the determination of the R. Q., i. e., the amount the CO_2 eliminated and O consumed, is an ordinary laboratory procedure. This is known as gas analysis. Having determined the R. Q., reference to carefully compiled tables will readily show the caloric value of each liter of oxygen so consumed. The number of liters of oxygen consumed in a definite period, multiplied by the caloric value of one liter at this R. Q., then gives the total caloric radiation or the rate of basal metabolism.

Fortunately, however, the caloric value of oxygen is not markedly affected by varying the value of the R. Q. In fact, it is customary to assume the R. Q. as 0.82, which has been found to be the average of a large number of determinations. It is surprising to note how near constant the R. Q. remains, even in patients suffering with various pathologic conditions. By assuming the R. Q. as 0.82, the time wasting, expensive procedure of gas analysis is obviated, which in itself is subject to many errors in technic, and it is only necessary then to measure the oxygen intake.

The caloric value of one liter of oxygen at the assumed R. Q. of 0.82 is 4.823 calories. Even with the widest variations in the R. Q. the caloric value of a liter of O will remain within 3 per cent. of this figure, 4.823. If we then measure the rate of oxygen intake by a suitable apparatus (or in other words, the rate at which the individual consumes a definite quantity of oxygen in a definite period of time) and multiply this by the caloric value of O, the result will be the basal metabolism of that individual. This metabolic rate is expressed in calories, either as the total calories per 24 hours or the total number of calories per hour, per square meter of body area. For example: If it takes an individual on an average of 4 minutes to consume one liter of oxygen, he would consume 15 liters in one hour. We know the caloric value of each liter of oxygen to be 4.823, so 15 times 4.823 would give 72.3 calories per hour or 1735.2 calories per day, which would be his basal metabolic rate. In other words, it would require that number of calories of food to supply his basic needs with no allowance for the specific dynamic effects of foods or for the effects of muscular work. However,

as stated above, the number of calories per hour, per square meter of body area, is the way the metabolic rate is frequently expressed. To comprehend this, the method of determining the body area will first have to be explained and this will be taken up later.

SOURCES OF VARIATIONS IN THE TEST

The normal rate of basal metabolism is influenced by 1, age and sex, 2, height and weight (body-surface area), 3, food, 4, body temperature, 5, muscular activity, 6, psychic states, and 7, certain diseases.

1. The effect of age and sex has been carefully shown by Aub and Du Bois. The rate in males is always greater than in females of the same age, and the metabolism in both sexes gradually decreases as we grow older. For example: The normal rate for boys between 6 and 8 years of age is 58 calories per hour, per square meter of body area, while in females between 70 and 80 years it is but 33 calories per hour, per square meter of body area.

2. The effect of the body-surface area on basal metabolism determinations must also be considered. Du Bois, after much experimenting, devised a method of quickly ascertaining the body area of an individual and this is known as his height-weight formula. He found that by taking 19 measurements of the body and multiplying the various circumferences by the various lengths he could calculate the body-surface area quite accurately. He then constructed tables by means of which we can quickly determine the body-surface area when the height and nude weight are known. All that is necessary then to do to obtain the body area is to take the individuals height and nude weight and to consult the Du Bois height-weight table. The relation of the body weight and body height determines the body area. This is usually expressed in square meters. For example: If an individual produces 72.3 calories per hour and his total body area is 1.93 square meters, the rate per hour, per square meter of body area would be 72.3 divided by 1.93 or 37 calories. If this individual is a male aged 40, it has been found by a large number of determinations that the average rate for persons in health at this age is 38.5 calories per hour, per square meter of body area. From the above we see that this individual produces 1.5 calories per hour less than he normally should, which is

equivalent to a—4 per cent. rate of basal metabolism (1.5 divided by 37).

3. The ingestion of food stimulates the metabolic rate to rise above the basal rate. This is called the specific dynamic action of foods and it varies according to the food ingested, the greatest stimulating effect being from proteids and the least from carbohydrates. Certain drugs also have the property of stimulating or depressing the metabolic rate above or below the basal rate. Caffeine is the most noted of these and may increase the rate 10 to 20 per cent. Because of the above factors, the test is not made until after the patient has abstained from all food, or drink (except water) for 15 hours (the patient being in the post-absorptive state), and has not taken any drugs for 24 hours or more. If the above precautions are taken the specific dynamic action of foods is eliminated, which may otherwise enter as a considerable source of error. It should be remembered we are endeavoring to ascertain the patient's *basal* rate of metabolism and not his total metabolic requirements.

4. The effect of muscular activity in stimulating metabolism is well known. In order to overcome this, it is absolutely essential that the patient rest in a recumbent position, perfectly relaxed, for a half hour before the test. It is also quite necessary that the patient not undergo any severe muscular effort for several hours previous to the test. On the other hand, we should be sure that the patient does not go to sleep during the test for it is a well-known fact that sleep slightly decreases the metabolic rate.

5. Various psychic states are quite capable of increasing metabolism above the normal rate. Fear of the test, embarrassment, etc., are all factors which must be combated by suitable means.

6. Du Bois has recently shown that the metabolic rate is raised about 7.2 per cent. for each rise of 1 degree F. above normal. Hence the temperature should be carefully observed before the test. It is also essential that the patient be warm and protected from cold during the test.

7. The variation of metabolism because of certain diseases, is a large subject in itself. Permit me to quote the following from Boothby, which covers this part briefly:

Of the diseases thus far investigated, those characterized by an increased basal metabolic rate are exophthalmic goiter, the hyperthyroidism of thyroid adenoma, the active stage of acromegaly (hyperpitui-

uitarism), and all febrile conditions. In other diseases, such as essential hypertension, pernicious anemia, leukemia, diabetes and possibly a very few not yet investigated, a basal metabolic rate slightly above normal may occasionally, though inconsistently, be encountered at various stages of the disease. In actual practice we have found that at least 95 per cent of all abnormally increased basal metabolic rates are due to hyperthyroidism (either that of exophthalmic goiter or of thyroid adenoma) if a febrile condition is eliminated by the thermometer.

A decreased basal metabolic rate is characteristic of myxedema, and to a lesser degree, by hypopituitarism. There are other conditions, however, in which there is a decrease in the heat production, for example, those conditions which resemble the early stages of myxedema without the edema and which Plummer has tentatively grouped under the term secondary hypothyroidism, largely because they improve clinically as a result of thyroid administration. In this subgroup are cases of inanition from prolonged fasting or from restricted food intake, such as occurs in anorexia nervosa, esophageal stricture or in cardiospasm; lastly, a few cases of decreased metabolic rate cannot be placed with any of the preceding groups and must remain unclassified for the present.

Finally, there is the very large number of diseases, not included in the foregoing groups, in which the basal metabolic rates are normal. Of these various conditions the most important from a diagnostic point of view is neurosis simulating hyperthyroidism. As a benign nontoxic adenomatous or colloid enlargement of the thyroid is often present incidentally in neurotic persons, it is sometimes impossible to eliminate the presence of a slight hyperthyroidism without the help of the basal metabolic rate.

THE APPARATUS REQUIRED

Basal metabolism determinations were made so infrequently heretofore because of the cumbersome, expensive, non-portable apparatus that was required, which could only be manipulated by a highly trained nutrition expert and which took many hours of time to complete. Due to the splendid work of Benedict, Du Bois, Jones and others, the apparatus required and the necessary technique have been so simplified that the test can now be made by any competent physician after a little training, and in a comparatively short time and with considerable accuracy.

There are two methods of measuring basal metabolism: 1. Direct calorimetry, or 2. indirect calorimetry. Direct calorimetry is the older method and determines heat production by actual measurement. The individual is placed in a large calorimeter chamber and the heat radiating from his body is measured. This method admits of use

only in large hospitals or nutrition laboratories on account of its great expense.

Of the indirect calorimetry method there are two types of apparatus on the market. The older is the so-called open-circuit type or gasometer method in which the patient breathes outdoor or room air and by use of a mask with suitable valves the expired air is collected and analyzed. In the newer closed-circuit type the patient, by means of a mouth and nose-piece, rebreathes from a closed system in which the CO_2 produced is absorbed by an alkali and the oxygen consumed is measured.

One of the most popular of the closed type apparatus is the Metabolimeter invented by Prof. H. M. Jones of the University of Illinois. This apparatus is very portable and accurate. With it a known quantity of oxygen is introduced in liter amounts and the time for the consumption of each liter of gas is noted. The CO_2 produced is absorbed by passing the expired gases over charcoal moistened with a solution of sodium hydroxide.

After noting the average time to consume one liter of oxygen by several determinations, to ascertain the metabolic rate with the Jones apparatus, is a relatively simpler matter. As Jones states: "All mathematical computations have been eliminated. The units expressing the results of the test are arrived at immediately and without calculation. A method which involves the use of logarithms, slide rule and considerable time for calculations, as in the case of the Benedict method, has not properly considered the inability of the average busy clinician to deal with this kind of mathematical procedure."

To illustrate: Female, age 28, height 60 inches, nude weight 90 lbs.; averaged 2.9 minutes to consume one liter of oxygen. Referring to the Jones height-weight table, which is modified from Du Bois, we find her height line intersects her weight line in a point between the oblique lines 1.3 and 1.4, say at 1.33. This 1.33 represents her body area in square meters. Referring to the Jones body area-minute table,¹ by which he reduces the

¹ Jones states: "The body area-minute table is constructed according to the formula—

$$4.823 \times \text{liters of oxygen consumed per hr.}$$

Surface area of patient
 equals calories per hour, per square meter, in which 4.823 is the caloric value of one liter of oxygen at the assumed R. Q. 9.82, and in which the liters of oxygen consumed per hour was calculated on the basis of the average number of minutes required by the patient to consume one liter of oxygen."

average time to consume one liter of oxygen and the patient's body area to calories per hour, per square meter, we find that the body area line 1.33 intersects her minute line 2.9 at the line 75. This 75 represents her observed rate of basal metabolism in calories per hour, per square meter of body area. Referring to the Aub and Du Bois table of the average basal metabolic rate of persons in health in calories per hour, per square meter of body area, the average rate for persons of her sex and age is 31.5 calories per hour, per square meter. Her rate is, therefore, 100 per cent. above the average for her sex and age, or plus 100 per cent. rate of basal metabolism. The diagnosis in this case is obviously one of severe hyperthyroidism, for there is no other pathologic condition which will so markedly increase the basal metabolic rate as this disease.

Most authorities allow variation of from plus 10 to minus 10 per cent. as being within the normal physiologic range of basal metabolic rates, the same as we consider the normal temperature range as between 97.5 and 99 degrees F. A constant variation greater than plus 10 per cent. or less than minus 10 per cent. in a given individual justifies the diagnosis of some pathological condition associated with an altered metabolic rate, the seriousness of the pathology being proportional to the extent of the alteration in the metabolic rate. Thus the use of the test in diagnosis and prognosis and in observing the effects of therapy is quite obvious.

CONCLUSIONS.

1. The basal metabolism test is a measurement of the heat production in an individual.
2. The principle of the test depends upon the rate of oxygen absorption.
3. The higher the rate of basal metabolism the more quickly will the individual absorb oxygen. (From 2 to 6 minutes are required for each liter of O depending upon all the various factors which are sources of variation in the test.)
4. The apparatus required is a device for measuring this rate of absorption of oxygen by the lungs, a scales with measuring rod and a stop watch.
5. The new closed-type of apparatus, such as the Jones and Benedict, are portable, reliable, easy to manipulate and should be preferred by practicing physicians.
6. Because of the delicacy of the test and its

sources of variation, the test should only be made by one who has had some training in the method.

7. The only preparation required of the individual to be tested is that he abstain from all food and drink (except water) for 15 hours and that he rest, perfectly relaxed, for one-half hour before the test.

8. At least 3 liters of oxygen should be given and the average rate per liter secured from this. Thus the entire time of the test itself need not consume more than a half hour.

9. The greatest usefulness of the test is in the diagnosis of thyroid and pituitary disorders. It is the best known method to measure the degree of activity of the thyroid.

10. The test is of as much value in the diagnosis and therapeutic control of hyperthyroidism and hypothyroidism as the Wassermann reaction is in syphilis.

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REFINEMENTS IN THE OPERATION FOR SENILE CATARACT*

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The many conditions that influence the results in the operation for senile cataract and the many requirements and measures to eliminate or overcome complications occurring at the time of, or immediately following operative procedures, if they do occur, are the factors that enter into this discussion.

General Examination: The first consideration when a patient with cataract is seen is for the surgeon to satisfy himself as to whether the patient is a good surgical risk from the standpoint of his general physical condition. Unless it is self evident that the patient is in poor general health and consequently a poor surgical risk, a history is taken, teeth, mouth and nose examined. If a septic condition of the mouth is found, either pyorrhea or apical abscess, I do not attempt an operation until the mouth has been placed in a proper hygienic condition and most

all cataract patients being elderly people, if they have any teeth left, these are open to suspicion. In these old people, among the teeth remaining, many of them will be found to be dead. The Mayo Clinic does not believe in an "increased surgical risk from abscess of the teeth and pyorrhea" and maintains that the "danger of infection from this source is not grave and has been overestimated." They state it as "inadvisable to subject an elderly person to dental treatment sufficient to make the mouth surgically clean." "The extraction of decayed teeth and treatment of pyorrhea" they believe unwarranted in ophthalmic surgery and they further state that they "have had no postoperative complications traceable to dental sepsis." (Benedict).¹ However, they have found, as others have, that a definite relationship of diseased teeth and lesions of the eye has been established in a number of acute inflammatory ocular diseases. This opinion in regard to the advisability of surgical procedure in the presence of dental sepsis, I am sure is not in accord with the views of the great majority of the ophthalmic surgeons. Butler² from his experience concludes that irido-cyclitis is not always the effect of an infection from without and refuses to operate in the presence of pyorrhea alveolaris. I believe in dental prophylaxis previous to cataract operation and if there is the slightest suspicion of infection, an x-ray picture of all teeth is obtained. Of especial importance is the elimination of dental sepsis before operation in unioocular patients, for in the additional risk of operating on a patient with only one remaining eye every precaution possible should be taken. A case in question was that of a woman 67 years of age, who first consulted me on January 18, 1920. This lady, 18 months before this time, had submitted to a two-stage operation for senile cataract in the left eye by an ophthalmic surgeon in Chicago. Following the preliminary iridectomy, she had for six weeks some inflammation of that eye. The extraction was then performed, great pain followed and the eye was removed ten days later. When she came to me there was a mature cataract of the right eye. In her examination I found pus coming up on pressure on the gums from around the few remaining

1. Benedict, W. L., Rochester, Minn.: "Dental Examination in Ocular Disorders." Amer. Jour. Ophthal., Dec., 1920, p. 860.

2. Butler, J. Harrison, "Some Statistics of Cataract Extraction." Brit. Jour. Ophthal., July, 1919.

*Read in Eye and Ear Section at 71st annual meeting of Illinois State Medical Society at Springfield, May 18, 1921.

teeth. As she otherwise was in fair general health, she was instructed to see a dentist and have these teeth removed before operation, which she did. The eye was operated on six weeks later and 20/50 vision secured. I am sure in this case that an extra hazard would have been taken if the dental sepsis had been overlooked. After the dental examination is completed, the patient is then referred to a competent internist for general examination, with request for report, especially of condition of the heart, bladder, bronchi and chest, examination of urine and blood pressure and amount of arterio-sclerosis present.

Cataract is the most common ocular disorder observed in diabetic patients and diabetes is responsible for a certain amount of failures in cataract operation. A fundus lesion or the increased liability to iritis and irido-cyclitis may cause disappointment in the results obtained after operation. It is important to improve the general condition and to reduce the sugar output in these patients before attempting operation on the eye. Elschmig³ does not operate if acetone and diacetic acid are present. This simply means that if these are found the diabetes is in the stage of acidosis, and as a surgical subject he is not a good risk. In the few diabetic patients that I have operated upon, the visual results obtained have not been nearly as good as in the uncomplicated cases, although the operation itself was carried out without untoward incident.

In the general examination of the patients with senile cataract it is also wise to ascertain if the patient is an alcoholic, as operation on this class of patients has not given me the results that I have secured in those not addicted to its use. This is to be expected as I have found that some of these patients do not have good retinal function, as shown by limited, or scarcely any color perception.

Eye Examination: If there is conjunctival secretion, an examination of the bacterial flora is made and treatment instituted until this condition is removed. In disease of the lachrymal sac excision is practised. The tension is taken and the condition of the cornea and iris is determined. The perception of light and colors and projection show the condition of the fundus and from this a fair estimate can be made as to what results are to be expected following operation.

Macular changes in myopic patients are frequent and brilliant results are not to be expected in these patients. In cases where an eye has been removed for sympathetic ophthalmia, a long interval is allowed to elapse before attempting removal of cataract in the remaining eye. The only case of failure I have had in cataract operations occurred in an eye that had been subjected to an attack of sympathetic ophthalmia. This case was a woman 80 years of age, who had previously had a cataract operation performed by an oculist in another city in which a prolapse of the iris had occurred. There was no light perception in this eye and it was the seat of a chronic irido-cyclitis. When I first saw her, sympathetic inflammation was present in the fellow eye, and I removed the blind eye at once. All inflammatory symptoms then disappeared in the sympathizing eye. There was a mature cataract in this eye and as the eye had been quiescent for several months, an extraction was attempted. On making the section the lens and some vitreous were immediately expelled, followed by hemorrhage within 12 hours.

Preparation of Patient: It is my practice to operate on these patients only in a hospital. There is no doubt of the dread of some of these old people of being in a hospital, but the risk of delirium, insanity or other complications from this source following operation does not seem to me nearly as great as the complications arising from attempting an operation in a patient's home. This is shown by the following case.

A man of seventy years, with senile cataract of both eyes was seen by me at his home in a town 40 miles away. He wished an operation to be performed, but absolutely refused to go to a hospital. I did not wish to operate at his home, one of the reasons being that the after care of the patient would have been left to some one else. The patient then called an oculist from another city, who extracted the lens in the home, the operation was unsuccessful and the patient died a few weeks later.

In all cases the night before operation a 25 per cent solution of argyrol is dropped in each eye and if the patient is of a nervous type, veronal or bromides are given. An enema is also given at this time. One hour before operation a tablet containing 1/150 gr. of scopolamine and 1/6 gr. of morphin are given hyperdermatically. The

3. Elschmig: Medical Ophthalmology, 1918, p. 432.

lids and adjacent skin are cleaned with soap, ether and alcohol. The conjunctival sacs are flushed with normal saline or boric solution by irrigation with a flat metal tipped point, which can be pushed under the lids, allowing thorough cleansing. Following this especial attention is now given the lid margins and lashes by wiping with gauze. Five per cent solution cocaine with adrenalin is used until complete anesthesia is obtained.

Operation: The type of operation preferred is the one that comes nearest to giving the best possible results with the least possible risk to the patient. The great majority of ophthalmic surgeons, I believe, are using the capsulotomy method in a one or two stage operation, according to circumstances. The latter, or that with preliminary iridectomy, should be substituted for the former in exceptional cases. The one stage or combined operation of iridectomy and extraction is preferred to the two stage operation because of the advantage of opening the eye but once and a single operation and hospital experience for the patient.

The results, according to statistics, by the capsulotomy method are as good as results of the intracapsular or Smith-Indian operation for cataract and every one is agreed, even the Smith-Indian operators themselves, that the intracapsular operation is much more difficult to perform, that there are more cases in which vitreous loss occurs and that the Indian operation requires special trained assistants. If the results are as good and the risk taken is less, then the capsulotomy method is near to an ideal operation.

A hook for the upper lid is used, which I consider greatly superior from a safety standpoint, than any speculum. This with the lower lid also is held by an assistant. The eye unoperated on is left open so that the movements of the eyes can be directed. A large section, taking in about half the circumference of the cornea, is made with a sharp knife, being absolutely sure before beginning the incision that the knife is sharp. A large conjunctival flap is made on completion of the corneal section.

Whitmire,⁴ to facilitate making this bridge, injects 5 minims of distilled water under the

conjunctiva at the upper limbus just before the section is made. A circular capsulotomy is then made, passing the cystotome well under the iris and cutting out a large round piece of capsule. If the pupil is fairly well dilated, pressure is now made in the cornea and if there is movement of the lens, a simple extraction is attempted. If the lens does not come freely, an iridectomy is made and the lens delivered. A couple of strokes to remove cortical lens matter is made, which if insufficient, is let alone, as continued effort may mean disaster. Swelling and absorption of this lens material takes place anyway. No time is wasted at this point in the operation and the toilet is completed as fast as possible, the object being to get the lids closed over the eyes as soon as possible. The iris angles and conjunctival flap are replaced, atropine instilled and a light gauze-cotton dressing applied over each eye with adhesive plaster. A metal protector is placed over the eye operated on.

Post-Operative Treatment: If the patient is without pain or symptoms the following morning, the dressing is changed, but the eye is not opened except for the daily use of atropine. The dressing of the eye unoperated on is discontinued after 24 hours. If there are no complications the patient is allowed to sit up in bed on the fourth day and to return home after the week. An eye pad is worn for a month and if necessary, discission is then done. Not many cases require needling, because of the large circular capsulotomy. Butler reports the loss of two eyes following discission and advises that where patients are satisfied with visual acuity of 6/12, nothing further is done.

Complications: These can be divided into two classes, those occurring at the time of operation and those coming on during the healing process. Among the former loss of vitreous is a serious accident, not alone on account of the danger of secondary hemorrhage, but also because of the liability of detachment of the retina, perhaps years afterward. One of my patients in whom there was a slight loss of vitreous at the time of operation and whose vision had been good since that time, came to the office one day five years afterward complaining that since morning when she woke up the eye had been blind. I

4. Whitmire, A.: "Elevation of Conjunctiva Near Limbus Previous to Cataract Extraction." Jour. A. M. A., 1920.

found a detached retina, with almost complete loss of vision. Loss of vitreous is an accident to be avoided by all means. Insufficient anesthesia is one factor that may result in failure on this account. Another is too much pressure exerted on the cornea or too long continued attempts to dislocate the lens from its capsule. If on ordinary pressure the lens does not begin to move, too small or an incomplete opening has been made in the capsule, if the corneal section has been large enough and efforts to force the lens to present should be desisted in and the cystotome again introduced.

Another cause of vitreous loss is liable to happen at this stage of the operation when a patient loses all self control and commences to squeeze the lids. A nervous, unruly patient may cause disaster here, if, after assurance is given that everything is all right, they cannot be controlled.

Complications coming on during the time of healing account for the majority of bad results in the operation for senile cataract. Wound infection, endogenous or external, prolapse of iris, delayed healing of the corneal wound, glaucoma, delirium and insanity constitute these post-operative complications. Delayed healing is generally not a very serious complication unless accompanied by prolapse of the iris. However, Butler reports the loss of an eye six years afterward from delayed healing due to a filtering scar in a patient who had enjoyed good vision during all this time. It is generally due to strands of capsule or iris tissue, or pigment entangled in the corneal section and in my cases a compress bandage has brought a very satisfactory result. In three cases there was delirium, two of which came on the night of operation and the third on the sixth day. They were all male patients and two of them, between 60 and 70 years of age, got out of bed and stumbled around the hospital corridors until found by attendants and taken back to their rooms. No mishap, however, occurred to the eyes. The third was a man of 56 years, who had a dream delirium at night in which he thought he was falling from a great height. In his movements something had struck the eye, for on removing the dressing the following morning, blood was found on the gauze, the

eye was greatly injected, blood filled the anterior chamber and the sight was abolished. The patient was kept in bed for three weeks and he recovered with vision of 20/40.

These attacks of mental instability can in part be avoided by guarding against diminished elimination, over-anxiety about the operation and by having relatives or friends constantly with the patient to avoid nostalgia.

Glaucoma as a complication I have never seen.

Sneezing, coughing and vomiting following operation are accidents that have happened among my cases, although no ill effects resulted, but these are to be avoided if possible by appropriate treatment beforehand.

The results in my cases show two failures, both due to loss of vitreous, one occurring at the time of operation, the other five years afterward, although the latter, as stated before, had enjoyed good vision up to that time. Six per cent. of all cases had some loss of vitreous, but only in the two above mentioned cases was the result disastrous. Fifty-six per cent. had visual acuity of 20/20 to 20/50. Thirty-two per cent. had vision less than 20/50 and these included the diabetic in 9 per cent. the simple operation was performed. Eighteen per cent. required needling and

Remarks: In attaining success in the operation for senile cataract, careful attention must be given to details in the examination and preparation of the patient. Be on guard against dental sepsis. Diabetic and alcoholic patients present an increased surgical risk. Fundus lesions often cause disappointment to both operator and patient. In my experience the use of a lid hook appeals to me as preferable to the speculum on account of the greater safety. In watching other operators, I have seen a number of eyes lost from vitreous prolapse, when after the section was completed the patient "squeezed" the lids. Especial care should be used in cleanliness of the conjunctival sacs and lid margins. Waste no time in the operation after the section is completed, for delay at this time may invite disaster, but get the eye covered as quickly as possible. Study of the patient should be made beforehand and measures taken to prevent delirium and mania.

(Discussion on page 26-29)

PRECAUTIONS NECESSARY TO AVOID ACCIDENTS IN CATARACT EXTRACTION*

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Suggestions that will lessen complications in cataract extraction cannot be recorded too often, and ophthalmic surgeons usually take kindly to modifications that will offer better visual results, but they are sometimes slow to adopt new methods, especially if the technique seems complicated.

The suggestions offered in this paper have come to me after very careful thought, combined with a reasonably fair experience.

The Operation: The first essential is an operable eye. The pupil should react well to light unless iritic adhesions prevent it. The eyelids must be free from inflammation, tear sac clean, tension normal, good perception and projection, with the lens in the better eye sufficiently opaque to prevent the patient from performing his ordinary duties.

Instruments: All instruments excepting the knife should be boiled in a tray made for them, then removed and placed on a table, covered with a sterile towel. In this manner, only the handles of the instruments are touched by the surgeon. The knife is held in 95 per cent car-



Fig. 1.—Tray.

bolic acid 30 seconds, alcohol two minutes, then placed in sterile water.

Assistant: It is quite important to have an assistant who can be relied upon, and as the assistant's duty is to keep the lids away from the eyeball, the use of the lid hooks should be mastered before attempting a cataract operation, by practicing, if necessary, upon people whose eyes have been anesthetized by instilling holocain. Nurses, if need be, can practice upon each other until proficiency is attained and they will then be found to be excellent assistants.

Anesthetic: Two drops of a 4 per cent solution of cocain is instilled into each eye, and at the end of three minutes it is repeated; then in

two minutes five drops of a 2 per cent solution of cocain is injected hypodermatically under the conjunctiva at the site where the iridectomy is to be made, and at the end of three minutes, or eight minutes after the first instillation, the eye is usually anesthetized and ready for a painless operation.

Lid Control: Specula have been discarded by the writer and the lids are held away from the eyeball by lid hooks devised by me. They are inserted under the lids when the eye is flushed and not removed until the operation is finished and the eye closed. These are preferred, being more familiar with them than those devised by Col. Smith of England, Vail of Cincinnati, Green of San Francisco, Horsley of Chicago, Szymansky of Brazil or others. The eye is flushed with four ounces of warm bichloride of mercury solution, after which the excess is removed with a medicine dropper.

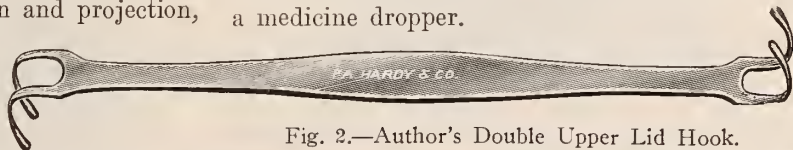


Fig. 2.—Author's Double Upper Lid Hook.



Fig. 3.—Author's Lower Lid Hook.



Fig. 4.—Lid Hooks in Position. The lids are held away from the eyeball with lid hooks, as in Figure 4. The assistant standing at the left side of the patient, whether operating on the right or the left eye, holds the upper lid up with the upper lid hook in his right hand and the lower lid down with the lower lid hook in his left hand, the third and little finger of the right hand resting on the patient's nose when operating on his right eye, and on the patient's temple when operating on the left eye. A nurse or second assistant holds up the brow with the thumb.

Incision: The incision, which is all important, is made as deep as can be made with safety, keeping the knife in front of the iris, making the

*Read in Eye and Ear Section at 71st annual meeting of Illinois State Medical Society at Springfield, May 18, 1921.

puncture and counter puncture a little behind the sclerocorneal junction and cutting just a little less than half of the cornea; the knife is set at an angle of about fifteen degrees from the iris, not changed from its position and the incision finished about two millimeters inside of the cornea. The incision can usually be made by experienced operators with one upward and forward stroke.

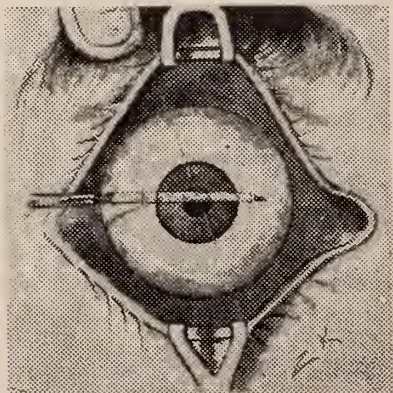


Fig. 5.—The Incision. An assistant is standing in the correct position, on the left side of the patient, holding the upper lid up with author's double hook in his right hand and the lower lid down with author's lower lid hook in his left hand. A second assistant or nurse is holding up the brow with the thumb. In this position the first part of the incision is made.

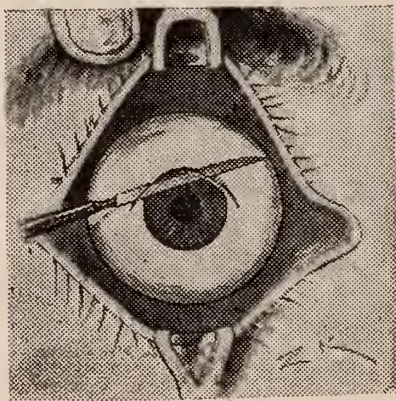


Fig. 6.—A continuation of Figure 5. The incision is being finished. It is practically impossible for the patient to produce any pressure upon the globe while the incision is being made, or during any part of the operation that is to follow. This part of the technique can be used to advantage in removing a lens by any method.

Iridectomy: The principle excuse for making an iridectomy is that prolapse of the iris less often follows this procedure than when it is omitted, and is classed as a complication. A small iridectomy therefore, is sufficient.

Cystotome and Capsule Forceps: The lens may be dislocated by either of these two instruments, especially when it is sclerosed, and for this reason they should be discarded. There is also another reason for abandoning them, and that is, their use prevents the possibility of removing the lens in capsule, which is admitted to be the best operation if it can be done with safety.

Lens Delivery: The lens can be delivered when the patient is looking straight ahead or up with greater safety than when looking down. (Smith Technique.)



Fig. 7.—Lens Delivery First Position; Immature Cataract: The lids are held away from the eye ball as when the incision was made. The capsulotomy has been omitted and pressure is being made with a small tenotomy hook directly backward towards the optic nerve. The zonula has broken above and the lens is presenting in the corneal incision.

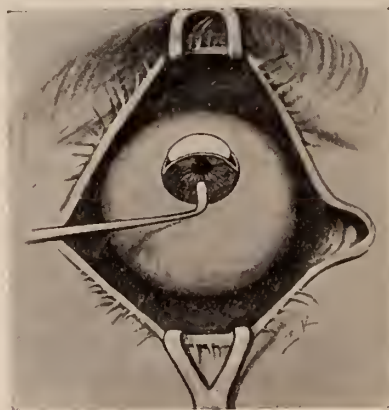


Fig. 8.—Intracapsular Operation: Immature Cataract. A continuation of Figure 7. The lens is advancing, pressure is being made continuously toward the optic nerve. When the lens has passed the equator it does not require any more pressure and is hooked out as in Figure 9.

Toilet: The iris can be replaced if protruding, with greater ease and with less danger when the

patient is looking up than when looking down. (Smith Technique.)



Fig. 9.—Intracapsular Operation. A continuation of Figure 8. The lens is hanging in the corneal wound when all pressure is removed, the point of the hook is directed upward to keep it from engaging in the incision. The hook is now pulled across the corneal wound under the lens, completing the delivery.

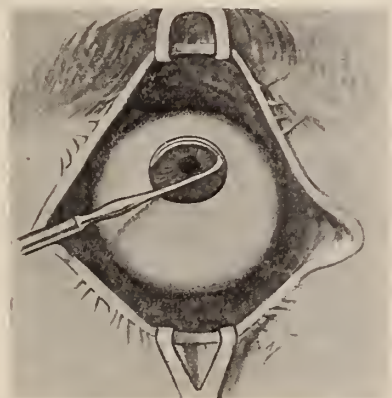


Fig. 10.—Toilet. All pressure is removed from the globe by author's lid hooks in the same manner as when the operation was begun, the patient usually looks up and, if not, he is requested to do so when the iris replacer is passed into the incision, the iris is pushed away from the puncture and counter puncture and the patient is requested to close his eyes with the hooks under the lids. When the lids are closed, the hooks are removed, the upper one first, and the eyes bandaged. The iris is more readily replaced when caught in the edges of the wound if the patient is looking up, than when looking down.

Dressing: When the operation is finished and the lid hooks are removed, the lids are covered with 2 per cent yellow oxide of mercury applied from a collapsible tube, and a light dressing applied, without pressure. One day in bed is usually sufficient and after that the patients should be up and down as suits them.

Three days after the operation the bandage is changed and omitted from the unoperated eye.

A fresh dressing is applied to the eye operated on, but the lids are not opened. Six days after the operation, a fresh dressing is applied to the eye operated on, but the eyeball is not inspected. Nine days after the operation the first inspection of the eyeball is made and if all is well, a patch is usually all that is required, and should be worn as long as the eye is sensitive to light.

Post-Operative Inflammation: If pain follows the healing process, the outer dressing can be removed, a leech applied to the temple and an enema administered, and if the pain subsides, it is far better than opening the lids and instilling atropin. Instillation of atropin as a routine should be discouraged in uncomplicated cases.

Iris Prolapse: If a prolapse of the iris is found at the first inspection of the eye, it should not be disturbed for another week, when the corneal wound will be more secure and less likely to be opened by incising the iris, thus protecting the eye from infection.

Vitreous Loss: Vitreous loss, great or small, is conceded by many operators to be one of the most serious complications that can occur during a cataract operation, and by far the best method of lens delivery when such an accident occurs is the one devised by Col. Smith and this technique can be obtained by practice on animals' eyes.

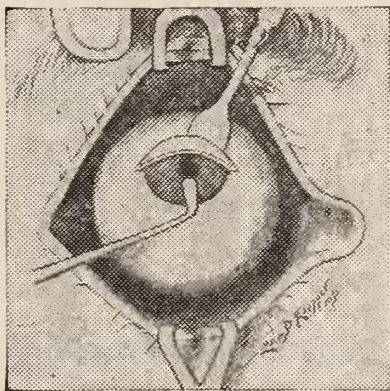


Fig. 11.—Smith's Method with Author's Modification of Operating When Vitreous Precedes Lens Delivery: If loss of vitreous preceding lens delivery has occurred in the intracapsular operation, the lens is delivered by the Smith method with the lids held away from the globe by author's retractors, the same as in the beginning of the operation. Pressure of the hook is removed, the Smith spoon, Figure 12, is passed down behind the lens and pressure is then made with the hook upon the spoon toward the optic nerve, when the lens is made to slide up the spoon and out. Compare this technique with that of the removal of a lens with the loop.

To Prevent Vitreous Loss: Fisher's needle is

used to prevent loss of vitreous when the lens refuses to be born after safe pressure has been made. This technique can also be obtained by practice on eyes of animals.

strychnia hypodermatically and in one minute they are dead. The eyes are then removed, placed in a mask and operated on.

The incision, iridectomy and lens delivery can



Fig. 12.—Smith-Fisher Instrument.

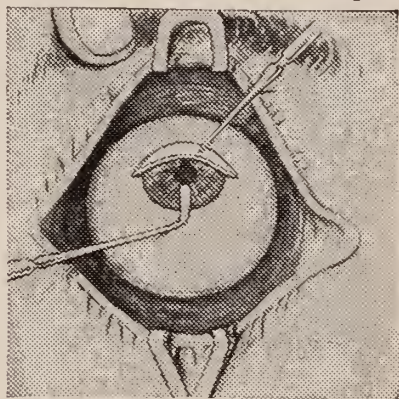


Fig. 13.—Author's Method of Operating When Vitreous Precedes Lens Delivery: Loss of vitreous preceding lens delivery has occurred in the intracapsular operation, the lids are being held away from the globe by author's lid hooks, the same as when the operation began. The author's needle, Figure 12, which was held in the left hand waiting for such an accident, is stuck into the edge of the lens, and, with just a little pull upward, together with slight pressure upon the cornea with the hook, the lens either comes out in capsule or the capsule ruptures.

Infection: If a cataract operation is performed on a clean eye without complications, and the dressings are not removed too early, infection is rare. In 1913 I performed 576 intracapsular cataract operations in Smith's clinic in India, with three pus infections, which would be about one pus infection in 200 cases, and this should be less in the U. S. A. because the eyes operated upon here are surgically much cleaner than those in India.

Good Operators: Operators hoping for success must be competent. How can one become competent? Pigs' eyes have been used as long as most of us have been in the field, but we know that it is difficult to obtain the delicate touch necessary for successful cataract extraction from their use. It is possible to get the technique of lens delivery, but operators must be able to do more: they must be able to make a good incision in order to effect a successful delivery.

Kittens' Eyes: Six weeks old kittens can be given 30 drops of a one per cent solution of

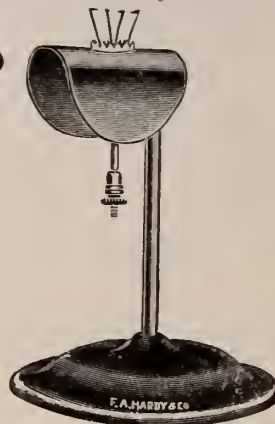


Fig. 14.—Author's Mask.

be practiced in quite a satisfactory manner, since the cornea is 11 millimeters in diameter and the anterior chamber and iris are also similar to that of the human.

A Comparison: The minimum requirement of a barber's school before issuing a certificate of attendance is 1,000 shaves. This does not signify proficiency, but if one must shave one thousand faces as a preliminary for his vocation why not have one contemplating such a delicate operation as cataract extraction operate on a sufficient number of kittens' eyes as will make him quite dexterous, before attempting a cataract operation on the human eye by any method?

Conclusions: If the foregoing suggestions can be applied to the operation for senile cataract with less danger than the operation so carefully described in text-books (and I believe they can), then it would seem plausible for anyone contemplating a cataract operation to operate on a large number of kittens' eyes and thus develop technique and eliminate accidents as far as possible.

If the precautions necessary to avoid accidents in cataract operations, referred to in this paper, are taken, the operation can be performed as soon as the patient is unable to read a newspaper or do the work he is called upon to do.

DISCUSSION ON PAPERS OF DRs. FISHER AND WELTON (ABSTRACT).

Dr. Thomas Faith, Chicago: The simple system of using lid retractors should be used by a competent assistant who has been drilled in the proper use of

them. Repeatedly one will see a threatened presentation of vitreous or threatened loss of vitreous during the operation when the proper management of the lid retractors and the proper position of the globe will immediately stop it.

Second, he has not used the cystitome or capsule forceps but on one occasion in a number of years, and believes it is not necessary, if the proper position of the eye is taken and maintained; that is, with the patient looking up, and no counter pressure made. Third, it is a big mistake to make counter pressure. And, fourth, the technic which is advised by Dr. Smith of continuous steady pressure on the lower part of the cornea and not intermittent pressure is certainly the safest and most satisfactory.

The rubbing on the surface of the cornea loosens up the cortex. If you are going to deliver the lens from within the capsule, more lens matter is left than if your pressure is continuous and steady, which prevents the breaking down of the cortical matter that may be more or less adherent.

He cannot imagine any benefit to be obtained from looking at an eye that has been operated on twenty-four hours previously. You assume that the eye is clean if you carry out your work properly.

Dr. H. W. Woodruff, Joliet: Everybody will agree that the patient should be in the best possible physical and mental condition.

Regarding the teeth, he does not think the Mayos have any objection to putting the teeth in as good condition as possible. Their argument is, however, with the extraction of some of these teeth there would be an additional hazard, and it is not always to be insisted upon.

In a paper before the Colorado Congress at Denver last summer regarding this subject, he cited two cases in which he believes an additional precaution should be used; that is, there are some cases in which you are almost certain to have a loss of vitreous. One place where that would occur would be in dislocated lens. With the slightest movement of pressure, or even without pressure, you are almost certain to have a loss of vitreous.

Also, it is occasionally necessary to operate upon old people who are more or less demented—senile dementia. If the ordinary methods are pursued, you are almost certain there to have loss of vitreous because these patients have very little control over themselves. In those two classes of cases, he advocates not immediately completing the incision with a knife; that is, instead of making the incision in the ordinary way with the knife coming clear through and making the flap at once, to leave a small bridge of a few millimeters of sclera so as to prevent that immediate gaping of that wound—then close the eye and wait a few moments—perhaps using a little additional anesthesia—and then simply hold the lids with the fingers so that the pressure is behind the wound in the sclera. You can gently open those eyes with your fingers, holding the lid with your fingers, and complete this incision with a pair of properly

curved scissors with little or no danger. At least, I was successful in these two cases.

In the case of an old man with senile dementia the result was very satisfactory and his mental condition was very much improved, according to the statement of his daughter, as soon as he had gotten his glasses and found he could actually see again.

Regarding the question in Dr. Fisher's paper of operating only in case the vision of the better eye had fallen below a certain point; that is, the patient still had useful vision so that he could pursue his ordinary duties. Then, he would not operate upon the other eye, no matter what the condition of the cataract.

Just why Dr. Fisher has decided upon that point of nine days he cannot figure out; why not seven days or ten days? Why should it have to be nine days? There are occasionally times when you have infection following a cataract operation. Most operators have had that terrible experience. It certainly is a terrible thing to take that dressing off after nine days and find the whole cornea sloughed away. You could have just that condition without any pain at all.

One thing to be taken into consideration when your patient is lying in the hospital is the mental attitude. Is he comfortable? It is a great source of satisfaction to let the patient know if anything should happen, that he can lay the dressing off of the eye not operated on. You can easily accomplish that by putting a separate dressing over that eye. Tell him that in case of necessity he can raise that dressing from that eye. He may not care to do that at all. If they know they can do it, it is a comfort.

Dr. George F. Suker, Chicago: He emphasized the discussion of Dr. Faith as he shares the same views and teaches and employs the method and technic whether it is for a simple extraction or the combined.

He makes a distinction between counter pressure and counter support and thinks counter support is entirely different from counter pressure. Counter support is essential. Counter pressure is reprehensible. Counter support is a safety measure and will put you in a position to guard against vitreous loss. Counter pressure often enhances vitreous loss. Counter support is made by holding a Smith spoon near the edge on the scleral side of the incision—the pressure exerted in the delivery of the lens, indirectly adds support of the vitreous against the counter support spoon.

He agrees with Dr. Welton that nine days is too long a time before dressing or changing bandages. He prefers to have both eyes bandaged for three or four days, and then the unoperated one is left unbandaged. In changing the dressings, as long as no edema of lids is present or pain complained of, the eye operated on is not inspected at all for the first four days, though it is bandaged for about a week.

In those cases which manifest a mental condition, it may be advisable to leave the eye operated on unbandaged within twenty-four hours and never to bandage the unoperated eye. Much depends upon

whether the patient has his vision in one or both eyes. If the patient has bilateral cataract, leaving the eye unoperated on uncovered will oftentimes prevent the intensity of the mental state. As soon as you have the eye operated on uncovered the mental condition rapidly improves.

The essential requisite in a capsulotomy operation is to get all or nearly all of the anterior capsule removed. A ragged anterior capsule often, by adhesions to the posterior capsule, forms small pockets containing soft lens substance. It is this condition which causes most of our complications by undergoing cystic degeneration. Therefore, the greater share of the anterior capsule removed the better for safety.

He believes an iridectomy should be made in most instances. There may be exceptions to the rule. In the simple extraction we are apt to have more or less trouble from incomplete removal of the lens. Some of the men who used to do simple extraction and who thought it was almost malpractice to do a cataract extraction with iridectomy are now all in favor of the combined operation—in one or two stages.

Dr. E. C. Spitze, East St. Louis: In regard to the dressing of the eye unoperated on after the first twenty-four hours. He has used several times a dressing of a snug fit eye patch lined with oiled silk. Punch one small hole right in the center or one on either side of the center. That allows the patient to see anything he may have to see; and it will, as much as possible, keep him from trying to look downward, which is probably the worst thing for him to do.

Dr. G. H. Mundt, Chicago: He has found six weeks old kittens' eyes, as suggested by Dr. Fisher, far superior to pigs' eyes.

As Dr. Suker says, there may be a difference between the kitten's eye and the human eye, yet it is the best substitute we have. Do not forget that after you have extracted the lens from the kitten's eye, you can put it back in and extract it again and again.

Before any operative procedure upon a globe, barring, of course, the patient who must be operated upon immediately—an accident or something of that kind—you should have both cultures and smears made as a rule.

The idea of instilling argyrol or any other silver salt in a conjunctival sac a number of times before operation does not appeal to him at all.

Dr. W. A. Fisher, Chicago (closing his part of the discussion): Dr. Mundt has answered Dr. Suker's question regarding operating on kittens' eyes. Kittens' eyes are not exactly like the human eye but they are the nearest substitute I know of. The six week old kitten's eye measures about eleven millimeters, if it is an alley cat—and most all cats are alley cats.

Dr. Suker and Dr. Woodruff seem to object to bandaging the eye nine days after a cataract operation, but I believe if any change is made in time it

would be better to add a day or two rather than inspect the eye too early. Nine days is not a definite period which he has used in his colossal experience but a time designated by Col. Smith. Twelve days would be far better than six, I think. If an eye is not infected in nine days, it is not going to be infected at all. If it is not infected in three days, the chances are it will not be infected at all. The more it is inspected the more chance is given to open the corneal wound and necessarily greater opportunity for infection. I believe ten or twelve days for the first inspection of the eye ball would be better advice than nine.

Dr. Woodruff's objection to my suggestion of not operating when a man has one good eye has some support but I have made it a practice for many years and I believe it is better not to operate when one can read a newspaper with the best eye. Any one that has a good eye will not be benefited by giving him two with a cataract operation. I send many patients home that come to me with one good eye and who want the other eye operated on because I do not believe it is satisfactory to the patient.

Regarding infection I do not know what you would do for a case of infection if you get it. The principal thing is not to get it. My infection cases usually are lost. I very seldom hear of anybody saving an eye from infection after a cataract operation. The operations I performed in India were made on very dirty subjects and there was one case in two hundred operations. That is better than my operations I do with clean people and all the cleanliness of private practice.

I would like to say something about Dr. Welton's paper before I sit down. It was a splendid paper and he is to be congratulated, but if the Baraquer suction operation is as much of a success as is claimed for it, Dr. Welton's paper will be the last capsulotomy paper before this Section.

Regarding the teeth: There should be a warning sounded about the teeth, the infection of the eye from the teeth is overdrawn. The people of India are as a rule very poor and do not have dentists, and pyorrhea is prevalent, while infection is so rare it is hardly classed as a complication. I think it is a good idea to pull the bad teeth if you can wait until the injury to the jaws has healed; but to pull the teeth and then operate before it has all quieted down, I think would be a dangerous proposition.

Some of you will be surprised, probably, to know the amount of work that can be done in one day. The fifth day of May at Columbus, Dr. Smith operated on fifty-two cataracts. The next day twenty-five at Dayton. The next day twenty-three at Cincinnati. Last week, sixteen at Dallas, Texas, and Thursday there will probably be thirty cases in Chicago. These staggering numbers are due in a great measure to the fact that most of the operations are not ready for the capsulotomy operations. If I had thirty days and could have written to all the members of the Society that Dr. Smith would operate there would be one hundred cases. How many doctors have cases

not ready for the capsulotomy method that are ready for the intra-capsular?

Dr. C. B. Welton, Peoria (closing his part of the discussion): A man who has recently made a study of cases with delayed healing as a complication following extraction, found in those cases insensitive corneas. Before operating, he advises in all cases that the cornea be tested beforehand. He thinks it has a direct connection with the delayed healing.

As to Dr. Fisher's paper, I wish to say here that I respect, admire and appreciate Dr. Fisher's work and his skill in cataract extraction.

As to his anesthesia, I like a perfect anesthesia. That I cannot get with the amount the doctor uses. With the atropin that I use—I say in uncomplicated cases—I think you get a mild iritis in all cases. I think if you should examine the eye closely the following day, or the second, third or fourth day, you will find that in a great many, if not all, cases you have iritis of some degree. I use atropin immediately after the operation. I do not look at the eye the morning following. I do not look at the eye for three or four days, perhaps. I use the atropin every morning. I do not raise the lid. I simply drop in the atropin on the lower lid, and put a fresh dressing on.

Regarding Dr. Woodruff's remarks as to the statement about the Mayo Clinic, Dr. Benedict wrote this article. I have quoted it exactly in the paper. He does not believe in the connection of the teeth as an additional hazard in any surgical procedure about the eye, and he mentions especially cataract operations.

Dr. Suker mentioned about the bandage being removed from the eye unoperated on after twenty-four hours. I remove the bandage from this eye after twenty-four hours invariably, and I have had no mishap on that account.

Dr. Mundt mentioned about the conjunctival secretion. I did not state whether there was a smear or culture made. I said an examination of the conjunctival secretion was made, which means a culture.

Dr. Fisher said that in looking at the eyes in three or four days he wondered what we would be looking for. I am not looking for anything in particular. I am simply looking to see whether I have an eye left or not, whether it is infected, or whether the wound is closed, anterior chamber refilled, amount of reaction, or what it is; I just want to see if there is anything left. I agree with him that you cannot do anything if you have got an infection. I agree with him thoroughly.

As to the teeth, Dr. Fisher does not think much of this connection. I think there is a direct connection when there is sepsis in the oral cavity. In having these teeth drawn, if there is pus there, I always wait until the gums and the cavity have quit suppurating and have entirely healed. I do not think it would do any good at all unless we wait four to six weeks, and have the mouth entirely healed.

As to the loss of vitreous, I have had six per cent.

of loss of vitreous; that is, I feel I am fortunate in having no more than that.

As to the detached retina coming from loss of vitreous, there is certainly a direct connection there. I have seen it follow after cataract extraction in many cases. I certainly consider it a direct cause. I cannot see how it can be otherwise, and I always feel dubious about the ultimate results in an eye when I have had loss of vitreous.

THE DIAGNOSTIC AND THERAPEUTIC VALUE OF NON-SURGICAL BILIARY TRACT DRAINAGE IN PATIENTS EXHIBITING BILIARY TRACT DISEASE UPON WHOM SURGI- CAL PROCEDURES HAVE BEEN PERFORMED PREVIOUSLY.*

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and

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One of the most important clinico-pathologic observations of the past decade has been that, but rarely (e. g., malignancy, congenital and circulatory structural faults), does gall-bladder disease represent of itself, an essential and primary ailment. Gall-bladder malfunction has been shown to be a consequence of acute or chronic infective processes, during the course of which bacteria are carried to and lodge in its wall. Such bacteria travel to the gall-bladder through the blood and the lymph streams and, frequently, from far distant primary foci. The secondary gall-bladder bacterial colonization may remain active and harmful long after the initial acute ailment or chronic disease has subsided or has been eradicated. Only infrequently does a gall-bladder wall become diseased from abnormal gall-bladder contents; the abnormal contents commonly represent biles with admixed by-products of the process of destruction and attempted repair present in the gall-bladder wall. Thus, study of gall-bladder contents; the abnormal contents commonly represent biles with admixed by-products of the nature and the extent of the lesion in the wall.

As one of us (F. S.) showed more than five years ago,¹ in a study of 1,000 operatively demonstrated instances of gall-bladder disease, smears

*Read at the 71st annual meeting of the Illinois Medical Society, at Springfield, May 18, 1921.

1. Clinical Manifestations in Gall Bladder Disease. A Study of 1,000 Operatively Demonstrated Cases.—Northwest Medicine, February, 1920.

from freshly secured gall-bladder bile exhibited infecting organisms in 28.6 per cent. of cases and cultures from such biles returned growths in rather more than 63 per cent. of specimens planted. The organisms recovered upon culture were of groups similar to those of the primary infection of which the gall-bladder ailment might reasonably be considered secondary.

Ranking in importance with the proof that gall-bladder disease usually is secondary to blood or lymph stream-borne infections, is the more recent clinical and pathological observation that only few instances of gall-bladder disease exist in which are not associated disturbances in other segments of the biliary tract—the common and hepatic ducts, the bile capillaries in the liver and, as McCarty of the Mayo Clinic has recently demonstrated (unpublished paper read at Mankato, Minn., Nov. 30, 1920), lesions—often of undoubted function-hampering degree—in the liver itself.

Further, it has recently been recognized that concomitant with chronic biliary tract disease, serious damage is frequently demonstrable to alimentary tract function, particularly with respect to the secretory ability of the stomach and the pancreas. In the series of gall-bladders above referred to, gastric achylia was observed in 20.9 per cent. of cases. Such anomaly demonstrates how commonly may the dyspeptic disturbances present with gastric disease be due to extra biliary malfunction. The stomach is not alone disturbed. In our cases, enlarged, infected lymphatic glands were shown in 12.4 per cent., chronic pancreatitis in 63 per cent. (28 per cent. in instances of common duct stone and 17 per cent. in cases of chronic cholecystitis); acute pancreatitis in two cases and deficient pancreatic function in more than 8 per cent. of cases.

From the above it is quite evident why physicians who perform surgical procedures upon the gall-bladder have for so many years engaged in bitter controversy with respect to which procedure gave the best results, namely, cholecystectomy versus cholecystostomy. Even ancient knowledge of the pathology associated with gall-bladder disease, would appear to indicate why in certain instances neither cholecystectomy nor cholecystostomy could prove an entirely satisfactory operative procedure, inasmuch as such operations

could not repair damage already done to gastric, pancreatic and liver functions.

Our recent report upon the diagnostic and therapeutic value of non-surgical biliary tract drainage after the intra-duodenal introduction of magnesium sulphate solution suggested by Meltzer and Lyon, would appear to offer a practical guide to the surgeon with respect to his operative procedures upon the gall tract. Certainly the surgeon of the future must consider not alone "gall-bladder disease," but must consider that a diseased gall-bladder is merely a localized, "getatable," removable part of which is commonly a widespread or frequently progressive process. Diagnostic biliary tract drainage after Meltzer's method will indicate to the surgeon whether the gall-bladder alone is at fault (in which event he may do a cholecystectomy with reasonable assurance that his patient will have satisfactory biliary tract function afterwards), or, whether the gall-bladder is infected concomitantly with the common and hepatic ducts and the bile capillaries in the liver (in which event cholecystostomy with long continued drainage would seem indicated). While the future course of biliary tract surgery would seem to be fairly well mapped out, and while our studies upon non-surgical biliary tract drainage have shown that many gall-tract affections can be taken care of satisfactorily without surgery, yet today we have to deal with a great group of patients who have had more or less haphazard surgical procedures performed upon the gall tract in the past. While the operative mortality in these cases has not been particularly great (rather more than 5.5 per cent. in the average first-class clinic), any one with experience knows that the digestive morbidity in these patients remains very high. There are, indeed, very few individuals upon whom cholecystectomy or cholecystostomy have been performed, who five years after their operations are exhibiting no digestive malfunction. The internist meets these patients more frequently than does the surgeon, inasmuch as since they have had all possible surgery performed, they seek relief not from their previous surgeon, but from the internist. Briefly, these patients experience distress in the liver region, frequently with definite enlargement of the liver; annoying feeling of "up-pressure" at night, often associated with cardiac disturbances; belching of gas, eructations, constipation or al-

ternating spells of diarrhea and constipation, distension of the intestines, weakness, chronic, moderately severe anemia, sallow skin and frequently asthenia. Occasionally acute exacerbations occur with severe pain in the liver and gall-tract region and at times transient or persistent icterus. Irregular recurrences of temperature are not infrequent.

The treatment of these patients in the past has consisted largely in mapping out a theoretic ideal diet and giving so-called tonics and purgatives. There has been need of more direct action therapeutically in this group of unfortunates. During the past year in our routine work there have come to us fourteen patients in rather grievous condition, who had previously had biliary tract operations, but who had not recovered health, strength or normal digestion afterwards. Nothing could be done for them surgically, so in an attempt at their relief, we have instituted non-surgical biliary tract aspiration per duodenum. This somewhat disconnected preliminary report deals with our experiences in this class of patients.

The fourteen patients reported are taken consecutively from our records between September 8, 1920, and April 29, 1921. There were 12 women and two men. During this period we drained the gall tracts of 309 individuals, 600 times—rather less than two drainages per person. These fourteen post-operative cases to be reported underwent 57 drainages—somewhat more than double the usual average. To illustrate the nature of the problems presented we will briefly summarize one case. For the purpose of brevity, the others will be grouped under their most salient features.

Case 1. Mrs. M., aged 46 years, the wife of a prominent Central Illinois surgeon, had from early childhood frequently recurring attacks of pain in the right upper abdominal quadrant, with fever. At the age of 32, jaundice first appeared. It lasted six weeks. Following this attack the seizures assumed more definitely the characteristics of gall tract disease with obstructive signs; at 43, the gall-bladder was removed by Dr. W. J. Mayo, at Rochester. The pathologist's report was "Strawberry Gall-bladder" with a single large stone. Immediate post-operative convalescence was rapid, and she returned home, only to develop in a few weeks a recurrence of acute symptoms so alarming that she was hurried to the Presbyterian Hospital in Chicago. Dr. J. Clarence Webster reopened the abdomen and evacu-

ated about a pint of pus from beneath the liver. Convalescence was stormy, for secondary stab drainage was required. After a month the patient left the hospital. For a year she lived in reasonable comfort, then attacks of severe pain at the right costal margin became troublesome, associated with transient periods of jaundice and clay-colored stools. A second trip to Rochester was made. She was advised that further operative procedure would be unwise. Under strict dietetic restrictions the patient improved but did not remain free from severe pains and dyspepsia. On November 3, last, she came to us for study. Her physical examination disclosed, among other anomalies, a liver enlarged, smooth, non-pulsating, not tender, definite muscle spasm over the site of the common bile duct and the head of the pancreas; the shoulders and small joints of the fingers exhibited early peri-arthritis and patches of psoriasis were noted over the body surface. The tonsils were enlarged and pus was present in small amount in the right, with secondary involvement of the various accessory nasal sinuses. Double tonsillectomy was advised and performed and repeated drainages of the biliary tract, per duodenum, were instituted. At the first drainage only 125 c.c. of thick, turbid, dark yellow bile were secured; it contained many flocculi, with a considerable admixture of pus; bacteriologically there was recovered an abundant growth of colon bacilli. At the second drainage, the congestion and swelling in the mucous membrane of the biliary passages had become so reduced that we were now able to secure 500 c.c. of bright yellow bile exhibiting a heavy sediment of pus, erythrocytes and cholesterolin crystals. There was a strong musty odor to the bile recovered; on culture, a growth equally divided between staphylococci and colon bacilli was secured. At the third drainage about 120 c.c. of clear bright lemon yellow normal appearing bile was spontaneously discharged upon the introduction of the duodenal tube—apparently the contents of dilated and distended common and hepatic ducts—followed (after the instillation of magnesium sulphate) by a second lot of 180 c.c. turbid brown, yellow thick bile (seemingly liver bile) with a rather light flocculent sediment, containing blood and pus cells in lesser amount, with a less exuberant bacteriological growth, again about equally divided between staphylococci and colon bacilli. The fourth drainage yielded only about 200 c.c. of one type bile with a heavy sediment, containing but little pus, but a massive culture of colon bacilli with a slight admixture of micrococcus catarrhalis. At the fifth session 400 c.c. of thick turbid lemon yellow bile were discharged spontaneously during a period of about four hours before any magnesium sulphate was given. Its administration was followed by a profuse flow of 250 c.c. bile, having much the appearance, although not the odor, of

rotten eggs, with still a third portion of 700 c.c. of somewhat thin and watery turbid light yellow bile. This totalled 1,350 c.c. and was the largest amount secured from this patient. On our sixth attempt, 480 c.c. were obtained—half spontaneously, half after the magnesium sulphate was administered intra-duodenally. Both lots were thick, turbid, opaque, of syrupy consistency, with heavy flocculent sediment and tiny macroscopic blood clots. Bacteriologically, colon bacilli were present in practically pure culture; microscopically, the sediment was chiefly amorphous bile salts with but little pus. *Physically*, the patient exhibited marked improvement in general well-being and the enlarged liver receded beneath the edge of the ribs. After the sixth session, the patient's husband took charge of the drainages at her home and we have no further notes except that we learn from the doctor that the marked clinical improvement which set in after the first biliary tract drainage still continues.

In this case, as in others of our series, duodenal drainage has afforded a way of emptying the dilated, distended, infected biliary passages from the papilla of Vater to the finer hepatic radicles, practicable in no other manner, in an individual who was rapidly becoming a helpless invalid, with definite evidence of spreading toxemia in the way of chronic hepatitis, pancreatitis and early arthritic changes superimposed upon the original gall-tract infection, after conservative surgeons of great experience had done all that their skill and wisdom could suggest and were confessedly at the end of their resources for her relief.

So far as our own experience goes, we are not familiar with any alternative procedure, surgical or medical, which offers such persons as this unfortunate woman as much relief as duodenal drainage of the biliary tract after the method of Meltzer. As we have proved, a fairly certain, quick, easy, painless safe form of relief, without the necessity of entering a hospital or leaving home (all the cases quoted in this report were ambulatory patients) is available. The only interference with the normal avocations of patients required is part of a day's time for each drainage.

SUMMARY OF CASES

To briefly summarize our fourteen post-operative cases, upon which non-surgical biliary tract drainage was performed:

A. Surgical procedures: Wherever possible, we have confirmed by conference with the operator, the nature of the original operation as reported by the patient. In two cases this was not pos-

sible, but the fact of gastro-enterostomy at least, was confirmed by fluoroscopic examination. These two were our least satisfactory examples, but are included for the sake of completeness:

NATURE OF OPERATION

CHOLECYSTECTOMY	4
CHOLECYSTECTOMY WITH GASTRO-ENTEROSTOMY. 1	
CHOLECYSTECTOMY with second operation for adhesions	1
CHOLECYSTECTOMY in two stages	1
CHOLECYSTECTOMY with secondary drainage of local abscess	1
CHOLECYSTOSTOMY	3
Some form of gall tract operation with Gastro-Enterostomy. 2	
"Operation on gall-bladder"	1
	<hr/> 14

B. The Patients' Health in the Interval Between Operation and Our Drainage. It is undoubtedly within the experience of each one of us that many of the patients subjected to operative interference with biliary tract integrity, fail to secure any considerable benefit from such procedure, either early or late; that a number receive some amelioration of symptoms, but are not clinically well; that a third group is greatly helped immediately, but sooner or later relapses into a state closely bordering upon that existing when they sought surgical aid; and a fourth lot considers itself to be and, in fact, seems to be well, clinically, when judged by external evidences. It is only recently that the publication of the researches and conclusions of MM. Widal, Abrami, Brissaud and Iancoresco, on the "Nature of Shock and the Significance of Hemoclasia" have furnished us with an easy and reasonably accurate method of determining the degree of functional capacity of the hepatic cells proper. Tested by the hemoclastic shock method, the single case in our series reporting continued good health after a cholecystectomy performed over four years ago, shows actually the greatest percentage of decrease of hepatic function which we have noted in any of the patients upon whom we have performed the test. This patient's leucocyte count, previous to the administration of his proteid meal, was 7900; in twenty minutes it had fallen to 7575, in 40 minutes to 5975, with a rise at 1 hour to 7250, and a further drop at 1 hour and 20 minutes to 6300. As indicating an interesting side light upon the clinical possibilities of an impairment of hepatic function, we may mention that this patient, a Louisiana physician, sought relief from persistent weakness, with tachycardia, on account of which a diagnosis of hyperthyroidism had been made, but his basal

metabolic rate showed so marked a fall below the normal as to render this diagnosis untenable.

Summary of the patients' health between the time of operation and of drainage:

HEALTH AFTER OPERATION	
NOT IMPROVED	2
IMPROVED BUT STILL IMPAIRED.....	8
IMPROVED TEMPORARILY, NOW WORSE AGAIN....	3
CONSIDERED SELF WELL BUT TEST SHOWS HEMOCLASTIC SHOCK	1
	14

C. *Results of the Gall-Tract Drainages.* It may be of interest to note a brief summary of the results of the drainages. As might have been expected from the nature of our cases, with toxemia persisting for long intervals prior to their appearance; with biliary passages clogged with inspissated mucus, and lining membranes swollen and congested, the poorest results were in the patients who underwent but three drainages or less—the best were secured in those who had six or more. It is our experience that the first one or two sessions simply serve to render the passages patent and open a way for the discharge of the infected bile which begins to appear in large amounts at the later drainages. We are inclined to believe that some of the less favorable results reported by other observers, using this method, may be traced to a lack of persistence in its application beyond the first or second session, and especially to an unduly early termination of the individual drainage. It is our custom to advise each patient that the procedure will probably consume the greater part of a day, and to continue the seance well into the late afternoon if satisfactory results are not earlier secured. Some of our most brilliant successes have been attained after four o'clock in the afternoon of a sitting which began at nine in the morning. Of course, these are the exceptional, the unusual cases—the ordinary duration of a drainage is much less.

TABULATION OF RESULTS	
Successful drainage with marked clinical improvement....	6
Successful drainage with relatively slight clinical improvement	3
Successful drainage but patient did not return.....	2
Drainage in absence of clinical symptoms, hemoclastic shock being present	1
Drainage only partially successful—slight clinical improvement	1
Entire failure of attempts at drainage—no clinical improvement	1
	14

As to the number of drainages required in each group. Those presenting successful sessions with marked clinical improvement were six in number with a total of 41 drainages—average 6 5/6 drainages per person.

Those with successful drainages with relatively

slight clinical improvement were three in number with a total of seven drainages—average 2 1/7 drainages per person.

Those with successful drainages who did not return were two in number, with one drainage per person.

The patient drained on account of hemoclastic shock in absence of symptoms had two drainages.

The person whose drainage was but partially successful with but slight clinical improvement had three drainages.

Where we were unable to secure any drainage we made two unsuccessful attempts.

As a matter of fact, the complicating factor in the last two cases was the presence of a gastro-enterostomy opening so large, and so situated anatomically, that the bulb constantly tended to enter the jejunum—and magnesium sulphate discharged into the jejunum seems to be entirely inert, so far as our experience goes, in the matter of the activation of the biliary response usually secured on duodenal instillation. It will be noted that the successful cases were those with nearly seven drainages on an average, per patient.

E. Nature of bile secured in later drainages, as to contamination compared with earlier results.

Practically normal bile finally secured coincident with clinical improvement	2
Bile practically normal finally—clinical improvement slight (limiting adhesions).....	1
Bile never seriously infected, but clinical improvement marked	1
Bile improved but still definitely infected, clinical improvement marked	3
Improvement in bile and clinically, each slight.....	2
No clinical symptoms.....	1
Single drainage only.....	3
Drainage unsuccessful	1
	14

F. Clinical results per person.

Improved—markedly	6
Improved—moderately	4
No clinical symptoms, but evidence of deficient liver function (hemoclastic shock).....	1
Did not return	2
Failure of drainage.....	1
	14

Clinically considered, omitting the case without symptoms, those who did not return, and the case wherein we were not able to pass the bulb into the duodenum, the ten remaining all show definite improvement; varying, from a lessening of the number and frequency of attacks of pain and dyspepsia, gain in weight, improved digestion and elimination, improvement in or restoration of blood to normal; to an apparently complete clinical recovery.

In closing it should be said, in all fairness to our surgical colleagues, that naturally it is not those patients who have secured relief from their

TABULATION OF FINDINGS NOTED IN FOURTEEN CASES DUODENAL BILIARY TRACT DRAINAGES FOLLOWING OPERATIVE PROCEDURES.

Initials	Age at Date of Exam.	Sex	Nature of Operation Performed	Date of Operation	Summary Associated Physical Abnormalities at Time of Physical Examination	Acute Illness Experienced Since Date of Operation	Post-operative Complications	Ever Well After Operation?	Associated Secretary Disturbances at Time of Physical Examination	Iliad Icterus Recn Present	Clinical Condition Fluid Obtained on Occasion First Drainage Biliary Tract	No. of Drainages	Clinical Nature Fluid Obtained on Occasion Last Drainage Biliary Tract	Clinical Result of Treatment
I. S.	51	F	Cholecystectomy	Dec. 1919	Infected right tonsil; myocardial weakness with slight sclerosis aortic arch; atonic dilated colon and sigmoid redundancy.	None	.....	No	Catarrhal gastritis with achlorhydria	.....	140 c.c. thin dark bile with much amorphous sediment; colon bacilli; cholesterol crystals.	9	At end four hour session no bile appeared.	Marked improvement
E. W.	48	F	1—Cholecystectomy. 2—Adhesions	1909 1918	Infected gums and teeth roots; infected right kidney pelvis; lacerated cervix and perineum with cystocele and rectocele.	None	Recurrent chills and fever for 12 years.	No	.....	.....	325 c.c. opaque yellow-brown bile with many flocculi; b. coli communis.	2	390 c.c. dark brown opaque bile with slight admixture blood; few colon bacilli.	Marked improvement
G. C.	53	F	Cholecystectomy.	Jan. 1918	Chronic nasal obstruction; infected right atrium; catarrhal otitis media; rheumatoid periarthritis; enlarged heart and aorta with low arterial tension.	None	.....	No	Catarrhal gastritis with achlorhydria	.....	150 c.c. translucent yellow brown bile with mucous flocculi; b. coli communis.	2	225 c.c. cloudy yellow bile with few flocculi.	Definite improvement
I. L.	45	F	Cholecystectomy	1910	Pyorrhea and multiple infected teeth roots; infected tonsils; early arteriosclerosis with moderate hypertension.	Slight attack influenza 1919	.....	Improved for four years.	Gastric achlorhydria; catarrhal colitis.	Yes	130 c.c. watery turbid bile with much mucus.	3	200 c.c. dark yellow brown opaque bile with but little sediment.	Marked improvement
H. J. G.	34	F	Cholecystectomy	.....	Chronic nasal obstruction with infected accessory sinuses; infected tonsil remnants.	Influenza; tonsillitis	.....	No	Catarrhal gastritis with hypoeacidity; chronic entero-colitis with catarrhal colitis.	.....	360 c.c. dark turbid bile with sand, blood, much mucus; b. coli; streptococci.	10	210 c.c. opaque amber bile with numerous flocculi; b. coli communis; streptococci.	Marked improvement
O. K. M.	64	F	Cholecystectomy in two stages	1911 1912	Cardiac hypertrophy; dilated aorta; arteriosclerosis with hypertension; pancreatic cirrhosis with enlargement; early interstitial nephritis.	Influenza, 1918	.....	Yes eight years	.....	.....	Yellow brown syrupy translucent bile, with few pus cells; great numbers b. coli communis.	2	70 c.c. yellow brown clear bright transparent bile with light flocculent sediment, few b. coli communis.	Slight improvement (two dental stenosis with adhesions)
O. D.	33	F	Cholecystectomy	1914	Infected tonsil remnants; simple thyroid enlargement without toxic signs; simple bronchitis; early arteriosclerosis.	Influenza	.....	No	Chronic cystitis	.....	125 c.c. bright lemon yellow turbid watery bile with large mucous flocculi and many b. coli communis.	1	.....	Did not return.
F. McI.	46	F	Cholecystectomy; Drainage abscess	1917 1917	Infected tonsils and accessory nasal sinuses; pneumonia; early arteriosclerosis with suggestion hypertension.	None	Large abscess under liver	Yes One year	Catarrhal gastritis	Yes	125 c.c. thick turbid dark yellow bile with many flocculi and considerable pus; b. coli communis.	6	480 c.c. thick turbid blood flaked yellow bile with heavy flocculent sediment.	Marked improvement
H. S.	60	F	"Gall stones" Cholecystectomy	1913	Infected accessory sinuses and teeth roots; enlarged heart; arteriosclerosis hypertension; enlarged pancreas; atonic intestinal stasis; external hemorrhoids	None	Drained for several months	No	Catarrhal gastritis with achlorhydria	.....	200 c.c. dark turbid yellow brown bile; little pus; b. coli communis.	3	200 c.c. dark greenish brown opaque watery opalescent bile; much fine flaky sediment.	Definite improvement
C. D.	61	F	"Gall bladder" operation	1915	Arteriosclerosis with hypertension; simple non-toxic thyroid enlargement; gastric ulcer.	.....	.....	Yes four years	.....	.....	Thick yellow turbid bile; small blood clots; b. coli communis profuse.	1	.....	Did not return.
H. C. P.	28	M	Cholecystectomy and Gastro-ent-erostomy	1916	Infected teeth roots; tonsil remnants and accessory sinuses; atonic intestinal stasis.	None	.....	No	Chronic glossitis	.....	800 c.c. turbid bright yellow bile with many flocculi and heavy sediment; pus present; b. coli communis.	2	960 c.c. turbid lemon yellow "rotten egg" appearing bile; large flocculent masses; b. coli in smaller number than at first.	Marked improvement
U. W. G.	29	M	Cholecystectomy	1918	Myxedema; hypopituitarism; myocarditis with hypotension.	Pneumonia	.....	Yes	.....	.....	500 c.c. opaque yellow brown bile with much mucus; b. coli communis.	2	280 c.c. yellow brown opaque bile containing symptoms; few small pin head blood hemo-elastic clots; b. coli communis.	No clinical improvement
D. K.	.....	F	"Gall stones" with gastro-ent-erostomy	Feb. 1920	Infected tonsils; alveolar abscesses; mitral stenosis; spastic intestinal stasis; fibrosis uterine cervix.	None	Chronic hepatitis with enlargement	No	Catarrhal gastritis with achlorhydria and rapid emptying; eosinophilia.	No	No drainage; bulb passed through gastro-enterostomy stoma into jejunum.	3	180 c.c. light amber watery translucent bile; slight sediment; no growth.	Slight improvement
E. G.	31	F	"Gall stones" with gastro-ent-erostomy	Sept. 1920	Infected tonsils, gums and teeth roots; myocardial weakness with mitral stenosis; atonic intestinal stasis; lacerated cervix.	None	Gastrojejunal ulcer	No	.....	No	No drainage; bulb did not leave stomach.	2	No drainage; bulb did not leave stomach.	No improvement.

troubles who are still drifting around from one physician to another, with a biliary tract morbidity. We are dealing in this series with a group of difficult cases. We cannot too strongly emphasize the fact that these people have already received the benefit of all possible surgical procedures and up to now have been dismissed with prescriptions for cholagogues and instructions as to diet. The surgeons have been at a loss as to any further operative interference—the infection has passed to an anatomical location where the knife cannot be used with safety. Our experience, added to that of Lyon, Crile, Barker, Sachs and many others has definitely shown that this method offers a direct way of ridding the liver and the biliary passages of stagnant infected bile, in addition to its wonderful possibilities in the direction of diagnosis of gall tract diseases. It is admittedly a new procedure—we do not for a moment pretend to a belief that we have fathomed its myriad opportunities. We merely offer this report of our results in a relatively small group of cases for consideration and reflection in the hopes that others will be interested in what we regard as one of the most promising of the procedures developed through the medium of the newer physiology.

Our experience would lead us particularly to emphasize the desirability, in treating these post-operative cases, of pushing the drainages energetically at the onset of the treatment, in order to clear the passages quickly of the accumulated debris and to establish early a free hepatic secretion. Drainages should be repeated every four or five days at least, perhaps oftener—until a bile is secured which approaches the normal, quantitatively, chemically, cytologically and bacteriologically. These drainages require time and patience. The subject should never be hurried—an atmosphere of leisure and accommodation should be created, and often an entire day will be consumed in a single session. So conducted, the procedure will be profitable to the patient and he will be able to convince himself of the benefits he secures.

In the room where the drainage is being conducted, or at least in some quickly accessible spot, a microscope should be on hand for the cytological examination of fresh specimens; culture media should be available to properly work out

and differentiate the bacteriological contents; while in severe infections, particularly those originating from streptococci or the colon bacillus, facilities should exist for the preparation of suitable autogenous vaccines.

Following drainage a proper regimen should be established in every case. We suggest a diet low in fat and in protein. Such diet gives the liver all possible physiological rest. At this time, when the ducts are comparatively patent and free from accumulated pathological bile, some drug may be administered with the object of aiding in combating infection of the duct and gall-bladder walls. Sodium salicylate has been found to be most satisfactory, when given in sufficient dosage to saturate the infected tissues; particularly does it seem useful where are present cocci of rheumatoid types. After the expiration of 36 hours the patient is gradually allowed a more generous diet, but its fat and protein content should be kept relatively low for months; even after convalescence seems to be well established and evidences of normal liver function exist.

DISCUSSION

Dr. Leon Bloch, Chicago: We have had a good deal of experience with gall-bladder drainage at Michael Reese Hospital and at the Dispensary, and in my own private work, and I have not been able to convince myself that I have had the character of success that Dr. Oleson has given us. His paper is excellent and he has gone into the subject in considerable detail. The matter must be considered from the point of view of diagnosis and treatment. In the matter of diagnosis, I think it is of particular value in diagnosing a condition of the cystic duct. I have had several cases in which we were able to get bile from the cystic duct. That bile is darker than bile from the common duct. I have had the experience of having bile from the cystic duct come out perfectly clear and still find that the cystic duct and gall-bladder at the time of operation were distinctly diseased. I have also had the experience of having cloudy bile come out from the cystic duct in cases which at the time of operation showed very little involvement. We have also had the experience of finding no organisms of any kind in bile from the cystic duct and find a pathologic condition displayed at operation. I do not believe it is possible to know the pathologic condition of the gall-bladder by such an examination of the gall-bladder contents. I do not think we have had as many curative results with drainage and we have followed out the technic very well. We have all followed out drainage of some sort

ever since we have been in practice. We have all used Epsom salts as a cholagogue, and whether the patient retains it in the duodenum for a little while and then passes it into the rest of the intestine or not, does not make much difference. We have all seen improvement under the Epsom salts.

I think we should be a little conservative in recommending biliary drainage, particularly in empyemas, because I do not believe we can always get the results Dr. Oleson has presented in his paper. These conclusions are not only my own, but in talking to some of the men at the Hospital who have also done the work I find they have had the same experience. While some patients do show marked improvement, it has only been temporary and in the majority of cases where gall-bladder infection has existed the only cure was obtained by operation.

The question of post-operative drainage is a little different, but even here I wonder if it is not the constant application of the Epsom salts acting as a purgative. We have all seen diarrhea after the instillation of the Epsom salts through the duodenal tube. It is a question whether the results are not due to the cathartic action of the Epsom salts so administered.

Dr. Richard Bartlett Oleson, Chicago (closing the discussion): I am very glad these points have been brought out. They are extremely interesting and it has been evident in our work that these obstacles which have been mentioned do exist; but later experience leads us to believe that where we get a large amount of liver bile without securing any cystic duct or gall-bladder bile, we are dealing with bile coming from the liver by a short circuit without admixture with other varieties. In such a case it seems that obstruction of the cystic duct and a distended gall-bladder may be expected. That cultures are often negative is true, but in many cases in which cultures are negative the anatomical effects of the infection still remain.

Concerning Epsom salts, you will probably remember that the thing which led Dr. Meltzer to these experiments was his work on dogs, during which he found that by passage through the stomach Epsom salts were so changed they could no longer be recovered, as such, from the duodenum. They are altered by the gastric juice. Consequently, it is necessary to bring magnesium sulphate in direct contact with the duodenal mucosa to induce the specific reaction.

This test is not infallible. We fall down on it every once in a while. Anyone starting out with the expectation of 100 per cent. successes will encounter disappointments. We all do. But if one keeps at it long enough and persistently enough, one will get results which will enable one to improve one's diagnosis of biliary tract diseases.

TWO PROBLEMS IN BRONCHOSCOPY AND THEIR SOLUTION *

G. W. BOOT, M.D.

CHICAGO

Problem 1. The first of these problems concerns itself with the rather common accident of an open safety pin. In this case a fifteen-year-old girl, while dressing, held an open safety pin in her mouth. Someone said something funny and she laughed, with the result that she inhaled the safety pin. As is common in such cases the foreign body entered the trachea point upwards. It lodged at the bifurcation with the point against the left side of the trachea, the opposite end occupying the lumen of the trachea and the hinged end lying within the right bronchus.

It was easy to grasp the rounded end but if it had been drawn out in this position the pointed end would have torn the tracheal wall. It was not possible for me to pass the rounded end and grasp the point. I attempted to make use of an Arrowsmith safety pin closer but failed.

The problem was to protect the point of the pin while getting a grasp and removing the pin. This I accomplished in the following manner: V. Mueller & Co. made for me a cone-shaped spiral on the end of a piece of piano wire. This spiral was adapted to the size of safety pin to be removed. The end of the spiral, of course, was blunt so that it would not injure the mucosa, and the turns of the spiral were so placed that the pin was not apt to project between them. Under direct illumination of the Bruening bronchoscope the spiral was advanced to the safety pin and rotated while being slowly pushed forward. Thus the spiral gradually encircled the pointed end of the safety pin until the point was lying safely protected within the smallest upper spiral, where it was parallel to the tracheal wall and could not possibly tear the mucosa, and the lower end of the spiral either encircled the lower end or passed through the coil of the hinge of the safety pin. Then by making traction the pin was easily removed. (Figs. 1 and 2.)

Problem 2. This problem also concerns itself with a rather common accident—the inhaling of a perforated foreign body. In this case a child of less than three years had inhaled a bead which became impacted in the left bronchus. It was

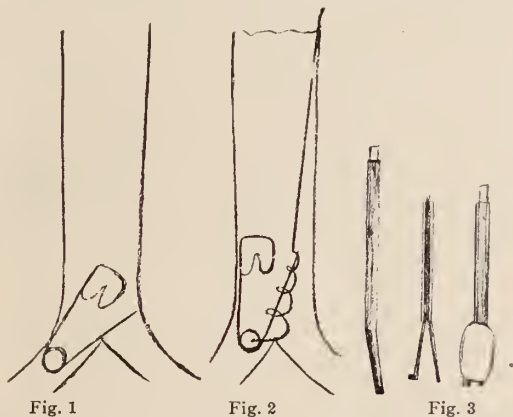
*Read before Section on Eye, Ear, Nose and Throat at 71st annual meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

smooth, oval in shape, transparent to the x-ray, flesh colored and hard, being made of some sort of composition in imitation of coral.

It was so tightly impacted that I could not pass a probe past it. Any kind of a grasping forceps would slip off because of its shape and hardness. The perforation was too small for an expanding forceps to enter and hold it. Fluoroscopy could not be used on account of its transparency and its reddish color made it exceedingly difficult to see.

The problem was to have an instrument small enough to pass through a small bronchoscopic tube leaving lumen enough to locate this difficultly visible foreign body and grasp it so firmly that it could be removed. (Fig. 3.)

This problem I solved in the following manner: V. Mueller & Co. again made for me an



instrument (and right here I want to thank them. They have the ethical standards of the highest class of physicians and have always carried out my designs in cases of this sort without delay). The instrument was made by using the small outer tube of a Jackson forceps. The distal half-inch was filed half way through and bent at a slight angle from the straight line. A piece of steel piano wire just fitting the tube had its distal half-inch bent to fit the bend of the tube. The extreme end of the wire was bent at a right angle so as just to cover the end of the tube. The opposite or proximal end of the wire was threaded to receive a knurled end one side of which was filed flat to show the orientation of the distal end.

Under the guidance of the eye the closed instrument was passed through the opening of the bead, the knurled end of the instrument rotated a half revolution and the bead was very firmly grasped and easily extracted with the broncho-

scopic tube. It was too large to pass through the tube used.

Both patients made speedy recoveries.

25 E. Washington St.

DISCUSSION

Dr. Harry S. Gradle, Chicago: Not being an ear, nose and throat man, I wish to compliment Dr. Boot.

I might ask the doctor if he has run against a cotter pin on the market today. It is just a very simple device with one arm coming up in this fashion (indicating), and the other arm with slightly less of a dip. When put into the region, it is driven through the hole and driven solid. This end (indicating) holds the upper arm, which bulges out in that fashion (indicating). The same thing, I imagine, could be done in a case like this. The upper arm to be driven down to the lower end, well home, up over the bead, forming a knob, which can be pulled out.

Dr. Joseph C. Beck, Chicago: I do not wish to pass any compliments, but which to discuss the subject from the standpoint of safeguarding the patient.

I think we are very fortunate in having two men in Chicago who are capable of doing this work and doing it so well. Since a number of years ago, when Dr. E. Fletcher Ingals first read his paper on this subject, I have considered this work immensely important, both in the removal of foreign bodies from the esophagus and from the bronchi. So few cases come in to each man that it is well to support men doing this work and we should send them this work to do. I have done that.

It is so important—knowing just how to devise methods to get these things out the first time, if possible. I see these cases. They are referred to me after attempts are made to remove the foreign body. It is something terrible—the conditions you find—the condition of the mouth, the tongue, the larynx, trachea and esophagus all torn to pieces.

It seems well that in communities there should be a number of men scattered who are doing just that work,—as it is not always possible to bring such a case to the city. It is advisable that a group of men do this work rather than that everybody attempt to do it.

Dr. Thomas O. Edgar, Dixon: It might be apropos to cite the case of an eighteen-months-old child who several months ago swallowed a safety pin 20 mm. in length. The skiagraph showed the open pin in the esophagus with the point up. I was unable to get, in Chicago, Dr. Boot's spiral safety pin closer and a home made one proved unusable when experimentally tested in a 7 mm. esophagoscope as did also Jackson's safety pin extractor. It was, therefore, decided under guidance of the esophagoscope to push the pin with the forceps into the stomach. This was done and

after a wait of 24 hours, a celiotomy was performed and the pin was found in the duodenum and removed. Recovery was uneventful.

Dr. Otto T. Freer, Chicago: In spite of the optical perfection and superiority of the Kirstein headlamp equipped with the Bruenings umbrells filament miniature lamp to all other methods of lighting for bronchoscopy, the long-stemmed miniature rice grain light is still the popular one in America, this popularity being mainly due to the fact that the use and virtues of the Kirstein lamp are not well understood here and that the war stopped the importation of the lamp, for before it it was rapidly growing in favor.

The objections to the long-stemmed, rice grain lights are the space they occupy in the bronchoscopic tube, a separate compartment being needed for them; their tendency to become darkened by blood and secretions; the readiness with which they burn out; and, above all, their limited range of illumination, which, like that of any naked unconcentrated light, diminishes with the square of the distance, so that the light is not thrown, as is the Kirstein light, brilliantly into the depth of the bronchi, but leaves this depth in semi-darkness.

The Kirstein lamp can project its light for thirty feet and permits the reading of fine print at the end of a tube one-third of an inch in diameter and a yard long. Being a pencil of light, it cannot become fouled. Its illumination is absolutely axial, in line with the axis of the eye, hence it was called by Kirstein "the shining eye." These qualities made it the choice of lighting for Gustav Killian, the father of bronchoscopy, and for Bruenings, the deviser of the most perfect set of bronchoscopic instruments.

Dr. George W. Boot, Chicago (closing): I wish to thank the gentlemen who have spoken so kindly about these instruments which I have devised. I presented these instruments because these problems occur from time to time in bronchoscopic work. The open safety pin is a common problem and the foreign body with a perforation is also common.

Some men have solved the latter problem by passing a rod with a screw on the end through the foreign body and securing it by turning the screw. The instrument I have shown here can be adapted to most of these cases and is more efficient than the screw.

In regard to Dr. Gradle's suggestion, in this work we have to be careful not to get into more difficulties than we had originally. I can see how if a cotter key were forced through a bead and sufficient force used to bend the cotter key the bead would break. If the bead did not break, the cotter key might form a right angled projection that would tear the bronchus.

The trouble with the expanding forceps mentioned by Dr. Edgar was that it was too large to go through the bead, and that the proximal por-

tion was so large that it interfered with vision, and direct vision was necessary in order to introduce the forceps into the hole in the bead. It could not be grasped lightly.

I agree with Dr. Beck's remarks about the damage done by improper work. I remember one case at the County Hospital under Dr. Friedberg's care. A child swallowed a knuckle of pig's feet. The family physician said he shoved it down, but in reality he shoved it through the wall of the esophagus. An abscess of the deep structures of the neck resulted. Dr. Friedberg opened this abscess and removed the foreign body, but the child died of a suppurative mediastinitis.

I had one case of open safety pin in the esophagus where I seized the pin by the ring and shoved it on into the stomach and under guidance of the x-ray turned it and withdrew it. This method is not original with me.

In reply to Dr. Freer, I do not use the Jackson tube. My objection to it is not the illumination, but the small diameter of the tube because so much of the lumen is taken up by the wires leading to the lamp. Only a space of one and one-half to two mm. in diameter is left for passing the forceps through.

The Bruenings light is the one I use. I find, contrary to what Dr. Freer suggests, that I do have a great deal of difficulty with blood getting on the mirror. The patient is sure to cough and blood and mucus and pus get on the mirror and it is necessary to stop and clean the mirror before proceeding.

PATERNALISM, THE MOST SUBTLE AND SINISTER ENEMY OF POPULAR GOVERNMENT*

FRANK L. GREENE

CONGRESSMAN

ST. ALBANS, VERMONT

The House being in Committee of the Whole House on the state of the Union for consideration of the bill (S. 1039) for the public protection of maternity and infancy, etc.

Mr. Greene of Vermont. Mr. Chairman, I am convinced with great earnestness that it is my duty to the people of my State and my duty to the Nation to oppose the passage of this so-called maternity bill and to vote against it.

In doing so I am fully aware that its enactment into law is urged by many high-minded men and women who are persuaded that it is a beneficent measure designed to do much good to humanity. I heartily respect the noble aspirations of these people and only regret that in this par-

*Address in the House of Representatives, Friday, November 18, 1921.

ticular instance I can not see my own duty in the light of their goo dintentions.

These people urge the passage of this bill mainly on the ground that it is calculated to relieve suffering and to save life. That these are among the loftiest of motives that can be embraced in human interest nobody can deny. Indeed, it is only to be regretted that many folks are so fervently advocating this measure, so enthusiastically committed to its purpose and policy, that those who dare to obstruct it are not infrequently put under color of the suspicion, absurd as it may seem, and they are stubbornly opposed to such a consecrated cause as this particular relief of suffering and saving of life. And, of course, no man in his right mind can be willing to rest under such an ignominious indictment.

But the answer to it is easy enough, if one will but analyze the subject and the situation and apply a little practical logic to the test. It is not defensible to do a wrong thing in order that good may come thereof. After many trials of one ethical and moral code after another, this wise old world has learned at least that the end does not justify the means. Granted, without argument, that it is urgently desirable to relieve suffering and to save life, the question still remains, Is this an instance when that duty should be performed by the Federal Government at Washington, or is it an obligation that rests upon organized society at home? And what will become of organized society, and how long will it, indeed, remain organized if it shirks off onto the agencies of a distant Government to be done officially and for hire the most sacred duties that devolve upon the home?

I am opposed to this bill for two general reasons:

First, because in my opinion it invokes a wrong theory and principle of civics or governmental policy in that it causes the Federal Government to do for its individual citizens that which they ought to do for themselves, or at least through their own voluntary and nonpolitical associations. It is paternalism, the most subtle and sinister enemy of popular government.

Second, I am opposed to the bill because it is economically unsound in the money obligations it creates between the several States and the Federal Government and in the financial relations of the peoples of the several States to each other

and to the Federal Government, and because of the loss of the right to local self-government that ensues to the people of the several States in consequence.

I know well enough that the suggestion that there is paternalism in this measure and that behind it lurks the menace of State socialism will provoke a smile of incredulity on some faces. But anybody here in Washington familiar with the artful propaganda that has been maintained in support of the idea of embarking the Federal Government upon the policy of "the public protection of maternity and infancy," knows how cleverly that propaganda has been made to appeal to some of the warmest sentiments of humanity and how skillfully it has sought to engage the earnest interest of the women of the land thereby. Anybody here in this capitol familiar with the stages through which this bill passed up to the time that it was reported out to the House in its amended form knows full well what a battle has been waged by the influences that would have given the measure over completely to the forces that in unhesitating avowal are making for the most radical principles of Government control of maternity, infancy, education of youth, and so on through the whole catalogue of Government regulation and Government standardization of the individual citizens of the land, including birth control itself. There is no secret about it.

The committee has stripped the original proposition down to a measure that does, indeed, bear the marks of simplicity, that closely resembles other enterprises upon which the Federal Government has cooperated with the States and now cooperates with them, and bids now for its support in this House on the theory that the bill is harmless, so far as any socialistic tendencies are concerned, and that men may vote for it with a freedom of mind that assures them that they have thereby committed themselves to no more than the text of the bill as it reads today.

But men familiar with the history of legislation must know, as indeed they do, that no Congress can bind its successors.

This bill is dangerous because it is the entering wedge for a policy that, once opened and in active operation, can have no other end than that broader and more insidious scheme of Government regulation and control that was in the minds of those who first proposed such a policy.

Today, happily, the Government does not seek officially to concern itself in any degree with the domestic relations of the care of maternity and infancy. Once this bill becomes a law, no matter how cautiously drawn, no matter how honestly advocated, the camel's nose has got under the tent.

The Government by that token has departed from its former policy and has begun to interest itself in this matter. Every man of experience in public affairs knows that from that day on the forces that have up to this time failed to get full recognition of their theories in this particular bill will never rest from their labors until upon the Government foundation here laid down they will erect an institution in which shall be found every one of their principles and agencies thus far rejected. Year by year, detail by detail, line upon line, precept upon precept, they will seek through amendment of law to work out a statute that realizes their fullest aspirations.

And the agencies and officers authorized even by this simple bill must inevitably, in the very nature of the development of such things, soon become the missionaries that will beset every home in the land with propaganda for the further extension of the law.

The time to stop a thing is now, when, for the only time, we can prevent its beginning.

Why, for that matter, the very fact that the bill sets a time limit of a few years upon the continuance of any operations under it is a bald confession by its own framers of distrust of the principle and frank admission that it can only be entertained, if entertained at all, as a rigorously circumscribed experiment.

If it is a good thing, why should it not go on forever?

I say again this is the entering wedge, to be followed in season by the grosser thing. The time to kill it is now.

Do you remember the old rhyme born of a fierce struggle in the British Parliament years ago that is very apt just now in its relation to this particular parliamentary situation here?

I hear a lion in the lobby roar;
Say, Mr. Speaker, shall we shut the door
And keep him there, or shall we let him in
To try if we can turn him out again?

I know it must seem to some people that perhaps I am a bit old-fashioned in my views about

such matters. Many folks are very earnestly and honestly hopeful that advancing social order will inspire Governments everywhere to do a great many benevolent and beneficent things for the good of mankind. And sometimes these people are not a little annoyed when they find men in my place who are not so eager about some of the proposals of this kind and are inclined to class such men with "standpatters," "reactionaries," and such like undesirables. Very likely, however, if many of these same high-minded folks were face to face with the stern responsibility of sifting these propositions one by one, of scrutinizing their details and the theory upon which they are based, of inquiring back into their antecedents to determine their reason for being, and of looking equally far ahead to conjecture their probable outcome—very likely, I say, many of these same people would themselves come to be somewhat conservative about adopting every new proposition that kept springing up in a period of such restless theorizing as that in which we now live. Very likely when they soberly realized that it was no longer academic speculation with them but direct personal responsibility for the thing to be done and all its consequences, they would listen to the voice of St. Paul coming down the ages to them:

"Prove all things; hold fast that which is good."

Personally, from my youth up, I have believed myself to be moved by ideas and ideals of a progressive social order. In times past I have engaged in many a battle along that line of ceaseless warfare for social betterment. My heart is with it still. But, however hopeful and ambitious we may be for a progressive and ever more exalted and useful social order, we must not make the fatal mistake of confusing the agencies that are to accomplish it with the agency that the social order itself is to accomplish. Government is the creature of social order, not the parent of it. And government will be just as healthy and just as strong as that social order has proved itself to be, no more, no less.

When society, through its own agencies and forces and inspired by its own exalted sense of self-preservation and self-responsibility, works itself up to higher and higher levels of social order, then society is strong and healthy, as all mortals are who take care of themselves and do for themselves. And the government such a so-

ciety sets up is strong and healthy, too, because, being a popular government, it comes out of the ranks of strong and healthy people.

But when society reaches that stage of vain speculation and aimless endeavor that it seeks to shirk off onto government the duties that belong to itself, individually and in the mass, society grows more and more lazy, inefficient, irresponsible, incompetent, helpless, and dependent in proportion as it drops its own burdens. For a while, it is true, government appears to carry the additional load; and then it is discovered, little by little, that society, having little responsibility to bear for itself, is only breeding parasites and dependents and is no longer sending strong recruits from its own ranks into the government. And the government, on the other hand, being no better than the people who make it, sinks to the level of incompetency and helplessness of the very multitude that looks to it for help. (Applause.) Then follows the inevitable process of sloth, decay, corruption, and collapse, and another one of mankind's heroic attempts to work out for himself on this planet an exalted civilization is gathered to its own dust for archaeologists of after ages to explore and a few crumbling monuments for historians to write books about.

I believe this bill is economically unsound.

In the first place, it is one more instance in which we show our disregard for that which grieved the fathers who declared their independence of King George on the charge, among other things, that "he has erected a multitude of new offices and sent hither swarms of officers to harass our people and eat out our substance."

And here we are 145 years later still doing the very self-same thing to ourselves!

Here we have once more the familiar story of the Federal Government making a proposition to the States that, if they will raise a certain sum of money for a purpose, the Federal Government will match it with a similar sum—but this must be done under conditions that the Federal Government lays down, and the money must be spent subject to the approval of the Federal authorities.

Mr. Newton of Minnesota. Mr. Chairman, will the gentleman yield?

Mr. Greene of Vermont. I regret that I cannot; I regret the seeming discourtesy.

Once in a while, maybe, there is some variation in the terms, as in this instance, but they all

amount to the same thing in the end. They all amount to this:

First, the Federal Government has to spend more money and, therefore, as it has no money of its own that it makes for itself and its own uses (contrary to an apparently rather widespread mistaken popular notion), it has to raise more money by taxing the people of the several States. The States are hard put to it now to raise at home the money to pay their own legitimate expenses, and the counties and towns as well. And now the Federal Government is combing the same territory, taxing the same people over and again to raise its own extra money also. Where is it going to end?

Second. The States that are thrifty and up-to-date pay the great bulk of the taxes that go into the Federal Treasury at Washington, only to receive in the general redistribution under the terms of just such bills as this but a very small part of what they put into the common fund. Vermont, it has been said, pays about \$32 into the Federal Treasury for every one she gets back. Whether these figures are accurate or not, they are near enough to it to illustrate the injustice that is done the State. But, under this vicious system, States that are backward or thriftless or unprogressive, or whatever it may be called, are encouraged to rely upon their thrifty sister commonwealths for the money they ought to raise for themselves by and among their own people, because it is to be spent for their own benefit. And so much is this true that it is no secret here in Washington that this policy is openly advocated by various influences in those States in order that they may profit by it at the expense of their neighbors.

Third. Inasmuch as the Federal Government insists that no money shall be forthcoming or employed except under its own policy and general direction, it follows that the States little by little surrender to the bureaucrats at Washington the control of the work thus to be done within their own borders, and even change their own laws to comply with the regulations that come down from Washington in order to give the freer scope to the Federal administration of what amounts, after all, to their local affairs. Thus, persistently and ceaselessly, the Federal Government is sucking away from the States the powers of local self-government that belong to them of

ancient right and appropriating those powers to itself to be administered by bureaus here in Washington. And that means, in turn, that armies of tax gatherers, agents of the law, inspectors, supervisors, overseers, and swarms of bureaucrats and their clerks descend from the Federal Government down upon the land, spy out the people's business or actually do it for them, and so, even as in the days of much-despised King George, "eat out our substance." Over and again, under this same old delusion of "getting something for nothing," the States have met the Federal proposition and lost just so much more of their original inheritance of the right to manage their own home concerns by doing it. Over and again has American Esau sold his birthright for a mess of pottage.

Where is all this to end? How can we square ourselves with our own knowledge and best judgment based upon that actual knowledge, with our own sense of public duty, and still keep saying to ourselves: "I will vote for just this one. This one shall not count," and still keep on piling up the score? Some day they will be counted, they will all be counted together; then we shall realize the cumulative mischief that the aggregate of all these little things had done; and then it will be too late. In the language of Scripture, these are, indeed, "the little foxes that spoil the vines."

There are presently opposed in the American world of civics two schools of thought. One adheres to the philosophy of the American fathers, that the security of our individual liberties rests in the maintenance of the greatest amount of local and home government that is consistent with national security and responsibility. It rests upon the time-proven fact that a popular government can be no stronger than the homes it comes out of; that the greatest practical amount of local self-government in a Republic like ours is a nursery and school for strong and sturdy citizenship and the reservoir of self-reliant and capable men and women experienced in responsibility from which it can constantly draw its own personnel and thus keep itself healthy and strong. Whereas a paternalistic government in time makes dependents of its people, weakens their moral fiber, causes them to be undisciplined in responsibility, and thus cuts off the supply of strong forces for the maintenance of the government at its very root. The

other school is frankly paternalistic in government on the theory that, all men and women being partners in the State, it is the duty of the State to act as guardian of and for them in order to fit them for that partnership and then to fit them generally for the activities and duties of life and to father them through those activities and duties from the cradle to the grave.

It is only a step from the ultimate realizations of a paternalistic government to State socialism. Once paternalism is the established policy of government, through steadily intensifying degrees of State regulation we gradually develop the doctrine of State standardization of men and things. After which we shall be ripe for the open and avowed policy of raising or leveling all men and things to the compulsory State-fixed standard. And then State socialism is upon us at last.

We must choose between those two schools of thought, because we are at the parting of the ways. And just such propositions as this maternity bill itself emphasizes that sober fact.

It is all very well to argue that we have done other things in government that are of the same order as this measure. Two wrongs never did make one right. A bad precedent does not justify another like performance. It is true that our social order has become so complicated in some respects that society can no longer tolerate with safety all the individualism that once obtained of right. It is true that we have made experiments of a paternalistic character, perhaps some of which have become so incorporated into our system now that they are not easily, perhaps not wisely, to be uprooted. But in this particular measure, no matter how we gloss its phrases or simplify its apparent objective, we have opened the door to a train of measures and a line of policy that, once under way, will not in the very nature of things evolutionary come to an end until we have adopted a theory of State regulation and control that would make many friends of this bill gasp if it were called by its true name.

We may try to deceive ourselves now and then by writing sleep phrases into our laws, but mis-calling things, perhaps, and by employing apt and alluring rhetorical devices under which the naked truth may masquerade for a time. We may keep on for a while, as we have been doing, setting up one after another the agencies of centralized and bureaucratic National government,

growing more and more paternalistic every day, and still think to lull ourselves into fancied security from the terrors of State socialism.

But it is the effect of these laws, not their titles, that stamps our public policy for what it really is.

And one of these days this country is going to wake up to the sober realization that for a long time back the legislative signboards have been misleading, and that America has actually left the straight and narrow path that the fathers laid out for it, and left it long ago, and is on the broad highway to all the ills of bureaucracy and the corruption that goes with it that those very same fathers fled from Europe to escape.

Back of this unpretentious, simple looking bill today are the agencies that for a long time have been persistently and insidiously working to incorporate into our American system of public policy in some degree and form or another, Government supervision of mothers; Government care and maintenance of infants; Government control of education; Government control of training for vocations; Government regulation of employment, the hours, holidays, wages, accident insurance, and all; Government insurance against unemployment; Government old-age pensions; and much more of the same kind and to the same end. Not all these agencies are working for all these things, to be sure, but collectively they serve the same purpose, and they expect never to cease their efforts until they get it.

And this is no mere idle charge. Many friends of this so-called maternity bill today would be amazed to see the forces that are eagerly awaiting its passage, ready to welcome it as one great accomplishment that will ultimately lead to more and greater realization of the dreams of the bolshevik and the soviet. Of course, the true American people that are behind this measure indignantly repudiate all community of interest with such forces. And they are honest about it, too. But whether or no they are innocently working to the very same end, just the same.

There are in this land today radicals of various degrees, from the mild parlor Socialist to the revolutionary and the red, who are determined to change the constitutional character and policy of the American Government. Some of them hope to do it peacefully and through popular education and the ballot box. The extremists are deter-

mined to attempt it by direct action and physical force at the first favorable opportunity. Meantime—and here is the pity of it—every change of policy along this same line now proffered that is introduced into the Government through the activities of often well-meaning but mistaken and misled theorists, whose loyalty to the constitutional principles is above suspicion, by just that much weakens the Government itself and prepares the way for the red. So long as the red is prevented from destroying the Government by his own physical assault, he is gratified enough to see its structure more and more breached and broken down because some part of his doctrines and philosophy are introduced into it by infiltration, and, strangely enough, on the part of its would-be friends at that. And thus the way is prepared to make easier the eventual destruction of government by the red and his physical force.

There was a Pharaoh once who ruled over a people whom at times he feared. It was this Pharaoh who sent forth instructions to the midwives of the land, and they may be read in Exodus 1:15-22. That was a pretty severe and autocratic enforcement of a maternity law, to be sure, and it happened a long time ago, and people think that such things are no longer possible. Of course they are not possible in this generation and in this land, and I do not want to be thought merely absurd in referring to it. And yet these same people might do well to look over into soviet Russia and see what has been done there in our recent day or, if they like, listen right here at home to the voices of those that preach the nationalization of the mother and her child, birth control, and various other similar devices and institutions. Government can do, it does do, mighty drastic things when it once gets under way with them.

I hope still to be a forward-looking man with fond expectations of the new and higher levels that social order will successively reach. I am not unmindful of the new color and the renewed warmth of beneficent concern for the public welfare that will be given to our public policy through the reinforcement of political influences by the great body of women voters and women participants in the activities of the Government, and know that much of lasting good may come of it.

I am not cast down in thought by occasional

discouraging developments in our affairs, nor am I now lamenting a hopeless situation or terrifying myself with shadows.

But I can not bring myself to believe that the people of this country, could they be consulted home by home today, want this bill or anything like it to become a law of the land. I can not bring myself to believe that the families of America in the millions of homes, once they have analyzed the situation for themselves coolly and thoughtfully, want to embark this country upon the new policy indicated in this bill, with all the sinister possibilities that lie beyond its present text. I do not believe that the great body of the women, those mothers and daughters, sisters, sweethearts, and wives, that seldom raise their voices in public affairs, actually want this law put upon them and their hearthstones.

I fervently believe that the home, with its sacred domestic obligations, is still the bulwark of American civilization and social order, and I can not bring myself to help in its surrender to eventual control in any degree by politicians and bureaucrats in Washington.

If a great and benevolent work in educating any part of the women and the households of this country in the responsibilities of maternity should be undertaken anywhere at all, then let it be done in the home, by the home, and by the community of homes (applause), sister ministering to sister, neighbor to neighbor, and friend to friend, in whatever concerted action or perhaps organized effort may be necessary, perhaps eventually in some degree officially countenanced by the home States, but always in that sweet sympathetic understanding of united womanhood that has in all time mothered the race.

Let us not, in any event, decree here and now that this most holy function of womanhood and the home shall be placed under any possible menace of hereafter passing under the scrutiny and regulation of that soulless corporation that we call the State and become the mere professional duty of distant strangers, working in a national political bureau for their daily hire.

For my part I do not believe that the women of my plucky little State of Vermont are yet ready to admit that our social order has so far broken down that they must cry out to Washington for help in the care and safeguarding of maternity and infancy in the homes that lie among

our old green hills and valleys, where for nearly two centuries the flower of American manhood and womanhood has been bred and reared by their ancestors and themselves. I can not make myself believe that the women of the Commonwealth of Vermont, whose noble pioneer mothers once upon a time went with their sturdy husbands into the wilderness and made a government for themselves, are now willing to confess that they have fallen so far from the high estate of their grand dames that they, in their day, must depend upon that Government for money and counsel in order to continue to rear generations of Green Mountain patriots.

THE PRESENT SITUATION WITH REGARD TO NARCOTIC ADDICTION IN THE U. S.*

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Although there has of late years been an immense amount of publicity on this subject, I believe that there is an undue amount of smoke in comparison with the size of the actual blaze. Analysis of statements and statistics leads me to feel that the whole proposition is comparatively simple and can be well expressed in a series of syllogisms, somewhat as follows:

I.

1. An addict is a person who habitually takes doses of narcotics in amounts toxic to the non-addict, and who suffers withdrawal symptoms when deprived of the drug.

2. Addicts are developed through curiosity, through bad company (much the same thing) and through medical treatment.

3. There are three sources of drug supply for addicts, prescriptions of physicians and purchase from peddlers, together with specially exempted compounds, such as paregoric, which are readily accessible.

4. The Harrison Law and interpretations, or any other law and interpretations can effectually control and record only the legitimate traffic.

5. Restrictions intended to control illegitimate traffic, or smuggling, can only result in in-

*Summary developed by the writer in the course of preparation of the report on Narcotic Addiction for the American Public Health Association in 1921, as a basis of discussion for the Committee, and in no way an official document.

creased prices and consequently greater profit to the smugglers.

6. The only method of control of the underground traffic is to eliminate the supply.

7. The only way to eliminate the supply is through prevention of sales to irresponsible persons, and the only way to do this is to get an agreement by the governments holding the monopolies that they will not sell save to persons whose disposition of the supplies can be recorded and controlled.

8. It is therefore quite futile to expect material reduction of the underworld trade at present.

II.

1. Addicts either have an associated condition which is a contra-indication to withdrawal or they do not.

2. Those who have such a condition should be kept comfortable, regardless of objections to addiction, or to their social status.

3. Those who do not have such a condition are either defectives or are not defectives.

4. Defectives will not co-operate in attempts at cure and must be forcibly dealt with if at all.

5. The main "contagion" of addiction is through defectives and criminals.

6. Non-defectives tend to concealment of their addiction and are therefore less likely to spread the habit.

7. The present number of defectives and criminal addicts is probably greater than that of the other group.

8. It is at least possible to consider different methods of treatment for the two groups.

III.

1. Addicts as such are suffering from a defective disease or they are not.

2. Opinions on this subject vary, both at home and abroad.

3. Scientific research abroad (there is little published in America) voices the opinion that addiction is a disease and attempts to show its characteristics.

4. The work presented, while very suggestive, requires further confirmation but cannot be rejected without attempts at such confirmation.

IV.

1. The present laws and rulings, while nominally of a revenue character, are intended to re-

duce addiction by making it harder to get the drugs.

2. The latitude given the officials in charge of administration of the Harrison Law has led to considerable variation in the interpretations.

3. The law acts in establishing a form of registration and record which admits of following the distribution of the drug from wholesaler to consumer, save in a limited number of exceptions.

4. The point of greater danger as regards possible avoidance of the intention of the law is the prescription of the physician.

5. It is claimed that in New York only a small fraction of one per cent of the physicians are involved in this avoidance.

6. The peddling trade, being extra-legal from the beginning, need not be considered here.

On the basis of these syllogisms, which I think cover the fundamentals, one can base further discussions, even if some of the original items cannot be accepted.

1. There is no dispute as to the status of the degenerate and criminal addict, who must be separated from the drug by force, and prevented from obtaining a new supply.

2. There is no dispute as to the status of addicts with conditions agreed to contra-indicate withdrawal.

3. The discussion centers about two points:

(a) The character of the treatment of all cases, but more especially those not in the criminal or degenerate class.

(b) The interpretation of the phrase "conditions contradicting withdrawal."

4. The *current* headings of the types of treatment are "ambulatory" and "institutional," but these apparently simple terms are variously interpreted by various persons.

5. "Ambulatory" in its strict sense, appears usually to mean that persons able to be about and carry on their daily routine more or less successfully are given bulk dosage to cover a given period, with or without the service of a personal attendant or guard.

6. "Institutional" in its strict sense, means the hospitalization under close restriction, and the carrying out of definite courses of treatment, until the patient is freed from the craving.

7. Ambulatory treatment can be carried out either by private physicians who prescribe a num-

ber of doses at one time, these doses to be taken at the will of the patient, or through a dispensary which acts in the same manner.

8. Various dispensaries have been opened in New York, New Orleans, Shreveport, Cleveland, and other places, and nearly all have been closed. The reason for closing has been usually stated as the abuse of the facilities in one way or another.

It seems clear that a dispensary which, with no more individual attention than the average institution of that kind gives, dispenses the drug in multiple doses, will cater not only to those who should have the drug without question, but to the ordinary criminal and degenerate addict.

On the other hand, it would appear from the reports of Dr. Butler of Shreveport, where the dispensary is still functioning, that it is possible, at least in a community of that size, to meet the problem successfully and to avoid the abuses. Whether this is possible in a large population center, with a number of floaters, is a separate and important question.

Where the community is not too large, and treatment is confined to actual residents, it may be possible to select cases so as to avoid danger.

9. The relation of the practicing physician to the question has caused perhaps the most excitement. It is obvious that when a physician is found supplying addicts without inquiry into each case, and is making no attempt at cure, he is acting in opposition to the spirit and letter of the law. On the other hand, we find the argument that a physician has the right to treat in his own way, and that it may not be possible to take certain patients off the drug at once, without a more or less continued preparation. This argument claims that any arbitrary rules as to the speed of reduction are a trespass on professional rights.

10. Hospitalization is a failure if it confines itself to a brief routine treatment, with no provisions for the long after-treatment emphasized as necessary by European writers and by our own. Absence of this results in 90 per cent relapses within a short time.

There is at present no financial provision for such after-treatment, and there are few places outside of jails and correctional institutions in which the addict without funds may obtain routine treatment. Moreover, even in the pay sanatoria, the course of treatment is brief.

POSSIBLE REMEDIES

1. As noted earlier, there is no hope of checking the underground traffic without international agreement.

2. The present laws show the disposition of all drugs legitimately obtained by the physician.

3. If the smuggled supply were unobtainable, the only source for the underworld supply would be thefts from legitimately obtained supplies.

4. It is generally agreed that this would be a small matter and in no way competent to supply the peddling trade.

5. The percentage of dispensers of legitimately obtained drugs who cater primarily to addicts is small and easily ascertained.

There are really two problems, one for the future, one for the immediate present.

Granting the removal of the underground trade through national agreement, and adding to this the time-worn factor of education of the medical practitioner to prevent the type of addiction for which he has been responsible, it is clear that the addiction of the future generation, as far as opium and its derivatives are concerned, would not be serious.

For the present, however, the problem is more complex. We cannot get international action all at once. We cannot develop adequate hospital facilities all at once, and if previous contentions are accepted, mere hospitalization without convalescent care would be unwarranted expense.

The mere forbidding of an action without removal of the means to carry out the action has never been more than temporarily successful, and it is well known that the best of reforms occur in waves, with long intervals between waves.

In reality how serious is the condition, and how much of a menace is it? In the earlier propaganda, the percentage of our population who were addicts was placed as high as four per cent. Now it is claimed as affecting one-fourth of one per cent or less, a notable drop, and one not claimed as the result of the execution of the law.

The great majority of the addicts who may be considered as a public menace are in the large cities, and according to such statistics as we have available, are for the most part in the criminal classes. Inasmuch as addicts of this type are resistant to all treatment save by force, the only way they can be cared for is in correc-

tional institutions, in which they may be retained till detoxicated. At least this portion then may be considered as a police problem rather than as a public health problem.

If this is true, the fact that the reason for relapse is the accessibility of the drugs through peddlers, brings us back to the same point in the circle, namely, the checking of smuggling and its checking by the only possible means, removal of the foreign source of supply.

If the peddlers' supply were limited to thefts from registered stocks, it would certainly be insufficient to *spread* addiction, even if it was adequate for the present group. The problem would be self-limiting, far more than would even adequate hospitalization and after-cure.

In summation it seems to me that the solution for the future lies primarily in the international limitation of the sale of opium products to registered and responsible persons, and secondarily in the education of physicians and the public as to the development of addiction.

The solution for the present is far more difficult. The supply is accessible, there is no adequate hospitalization in sight, the educational side is incomplete. There is little disagreement among reputable persons as to the disposition of most of the cases. The main argument concerns the interpretation of the proper control and treatment in a limited number of individual cases. There are, it seems to me, two main points of difference. First, can the physician be trusted to play fair with the law? Second, is the number of such cases and their relation to society a menace?

Decisions and recommendations must be made on the basis of facts. It does not appear likely that further investigation will do more than to increase our statistical knowledge, and fill out the records of types and cases. The only point under serious dispute which may be cleared up by scientific investigations, and which should be most carefully studied, is the classification of addiction as a disease or as something else. Until this is done in a manner sufficiently clear to carry conviction, the present argument will continue.

East 9th St. & St. Clair Ave.,
Cleveland, O.

NOTE.—This report puts the findings of Dr. Prentice's committee in the shade. It goes back to the ideas of all real inquiries and reports

—taking three groups of addicts, and asking for further scientific study on the matter.

The report from Dr. Prentice's A. M. A. Committee are sub-committee of the Council on Public Health and Education, we are reliably informed, was shot full of holes as to validity during the Public Health Convention. From what we can learn it was left a sort of orphan or illegitimate child. It is also to be noted that the Journal of the A. M. A. in its report of this resolution completely emasculated that of the committee.

A PLEA FOR A MORE THOROUGH ROUTINE BACK EXAMINATION*

J. H. BACON, M.D.

PEORIA, ILL.

A problem approached from any one standpoint will probably result in a distorted view; therefore I shall not limit myself to those cases that need surgical treatment, but my plea will be for a thorough back examination as a routine for all patients.

WHY should a thorough back examination become a routine procedure?

1st. Our patients need the very best that we can give them and those that have back complaints either primary, secondary or both, are frequently seen.

2nd. It is necessary to make our histories so complete that in the differential diagnosis of difficult cases all the possibilities are thought of and proper importance therefore given to each.

3rd. This careful, painstaking, orderly procedure is necessary to keep ourselves alert and growing with our work.

4th. We must correct a popular statement from becoming a reality, "that one must go to an Osteopath or Chiropractor to have some friendly interest taken, the recital of complaints of back-ache, and to have a competent examination made." I cannot be content to sit idly by and see that miscarriage of therapeutics by the ignorant, arrogant, advertising Chiropractors, which is becoming all too prevalent, when that finely trained body of general practitioners are becoming side-tracked on what I believe to be the quacks' only means of economic existence. When the medical

*Read at the 71st Annual meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

man wakes up, the quacks' bonanza will be gone and he will cease worrying legislatures with his perennial bills for recognition, and he will not have the money to continue his flagrant advertising. LET US BE FRANK and admit that we have driven patients away from our offices who really needed treatment, by our methods of neglect, giving comfort to the quacks who have commercialized our indifference, and are almost battling us to a stand in the treatment of some chronic conditions by combining with the aroma of a perfumed rub all the pleasing effects of a massage, which one of the opposite sex, bedecked in a kimono, might arouse in a patient. These suave salesmen of perfidy are constantly playing upon the psychological effect of fear of operations, upon the dislike of taking nasty medicine unless it happens to be in controversion of the 18th Amendment. Yea, verily, "for ways that are dark and tricks that are vain are not only known by the Heathen Chinee."

When one notes the number of back cases in which there are no definite diagnoses made it becomes readily apparent that the diagnosis must be essentially difficult. Possibly this should be laid to three different causes: 1. Lack of thorough routine examinations. 2. Individual lack of exact knowledge regarding the Anatomy and Physiology involved. 3. Multiplicity of parts and complexity of their mechanical and physiological action. It is my privilege today to again draw attention to this neglected region with the hope that I may stimulate some interest in its problems. One hundred thorough back examinations will greatly develop your respect for this wonderful mechanism and you will no longer believe, as I did, on leaving the Medical School that there were but five back diseases, viz., lumbago, Potts disease, arthritis deformans, fracture of the spine, and retroversion of the uterus.

The seriousness of the situation is apparent when you consider how frequently the physician by his indifference to the oft-repeated complaint of backache is virtually driving his patient to the quasi-medical practitioner, who promises so much and who makes a great showing of interest. I can but think of the patronage given these charlatans as a rebuke to us by the people and in common parlance we should get busy.

Allow me to quote just one series of 134 industrial accidents seen by Sever, 105 of which, several months afterward, including many frac-

tures of the vertebra and its processes, had received either no treatment or inadequate treatment. True, this deals with only those ailments arising from accidents which came before a commission. Let us hope other ailments are more carefully treated, but can you be confident that they are? In these times of general indifference to the rights of others, let us be old-fashioned enough to believe it is our bounden duty to be of service to every applicant for aid.

Some one has truly said, "A knowledge of the possibilities is essential to a correct diagnosis." Yet we all know, it is not the man who knows the most that has the most correct diagnoses to his credit, but the one who systematically makes the most careful and complete examination. Have you ever had the humiliation of having some one pick up the evidences of your incompleteness? The hopeful side is, that the one who makes the complete, thorough examination soon develops the best working knowledge.

It is very difficult for the ordinary physician away from the medical centers to maintain the healthy interest he should in the scientific side of medicine. The tendency is to become slouchy in methods and histories are abandoned. Every stimulus possible is needed to maintain steadfastly the practice of making complete routine examinations. When one is tired it is so easy to form a hasty judgment before all the evidence is in and write a prescription. However it is destructive and not constructive and in the end you are driving your patient to the mercy of the quack or the patent medicine habit.

If I may be permitted I shall review some points in the back examination that my limited time will allow. While theoretically it begins with history taking, yet in ambulatory patients it begins with their posture and gait being observed as they enter. Such observations often give the clue that makes the history of more practical value. The history should include a record of all injuries even though many years have elapsed since their occurrence. A serious injury to one part often obscures a lesser injury to another. As an example, I might cite the case of one who most of her long life suffered from backache, developed from the strain of holding an easily dislocated left patella in place. The patella was the seat of a longitudinal fracture received in a fall from a horse at 14 years of age. The patient being unconscious for several days

and confined to bed for several weeks, it was not recognized. This condition existed unrecognized for 64 years, the patient believing she had a weak knee. This case may be unusual but I rather doubt it when I read the histories of some of the cases before our Industrial Boards.

If possible the relation of onset to all acute exanthemata, tonsillitis or acute infection should be ascertained and this should include venereal diseases as well. All periods of poor health with loss of weight and vigor, with their muscular relaxation, should be kept in mind as possible periods of tuberculous activity. Muscle relaxations will surely follow if activity is begun too soon after child-birth or operations. Changes of occupation and increase of weight are pertinent, as related to any change in posture. Dressmakers and tailors often find irregularities of form which we sometimes overlook, so it might be well to include a question as to difficulty of being fitted for clothes.

Inspection should be made with the patient, unhampered by raiment, in both standing and prone posture, if possible. This is essential, often quite difficult to obtain, but the results more than justify the means. This alone explains why many cases are not diagnosed. A side view gives one a better appreciation of the natural curves or a slouching posture. Pay more attention to posture and balance. Note any asymmetry and hunt the cause, any atrophy or hypertrophy, muscle spasm, any eruption or discoloration of skin. A slight tilting of the pelvis is lost even under slight raiment and a soft bed will hide a considerable degree of lordosis or flexor contraction of the hips.

Following inspection comes mensuration. Do not depend upon the eyes alone in trying to estimate the size and length of limbs; it has many pitfalls. It markedly improves the judgment to have it checked by a steel tape measure. This should be done on a flat table, if you wish to decrease your errors. I cannot too strongly condemn the practice of making physical measurements on a sagging bed, especially on cases where it is necessary to have exact measurements. Write down your measurements and use them for comparison in the next examination and frequently they will point at something of importance. The knee that is apparently enlarged stands out in contrast with the atrophy of the thigh and leg

muscles and makes a real optical delusion. You will have erred if you expect to find all the back troubles without a thorough examination of the legs. Often the cause of the slight atrophy of the leg muscles is the only outward sign remaining of a long-forgotten mild attack of infantile paralysis that also involves the back muscles and the increase of fatty tissues has long hidden it completely. The other physician who was talked out of his demands for a nude subject did not see this.

A careful palpation, at first with an easy hand, will detect local fever, undue prominences or fluctuations, as well as muscle spasm. Sometimes bony crepitus may be elicited, but more often there will be discoloration and local swelling. Even if these are absent a fracture cannot be eliminated, either of the centrum or one of the many spinous processes. Possibly one gets a better idea if the tips of the spinous process are marked with a skin pencil. Every man will develop his own technic, but personally I like to finish my palpation while I am trying out the movements of the back and get my finger tips on all parts of the back when it is at the extreme of all its normal movements. Unless one is careful the tilting of the pelvis or the flexion and hyperextension of the thigh will apparently increase the extent of mobility. The pelvis should be fixed in testing out the movements of the hip and this is best done on a hard table. Slight degrees of adduction and flexion deformities are more readily picked up and the test of straight leg raising has more value. In making all tests for mobility it should be remembered that the soreness of an arthritis is first manifested at the extremes of the normal arc. In our palpation we should appreciate the natural hardness of the heavy muscles of the laboring man from the spasm of one who does only light work. Bones also become more massive with heavy work the same as muscles and so do muscle attachments. Bones receive most of their blood supply through their muscle attachments, so bone atrophy comes quickly when muscular action ceases.

While I hold no brief for the sacroiliac joint, yet I believe it soon will be found as prevalent in the West, yea, verily, in Chicago, as it is now found in Boston. Do not let an opportunity pass without a most thorough examination of it until

such time as we all may agree as to the amount of pathology that really exists here.

All cases in which a definite cause for the backache has not been determined should have the benefit of an x-ray examination, but never to take the place of the physical examination. It may show the spina bifida occulta, the long, lateral processes of the 5th lumbar impinging on the ilium, extra ribs, exostoses, bone atrophy, tuberculosis, osteomyelites, hypertrophic arthritis, fractures of any of the many processes almost impossible to recognize by other means now available. If after an accident the first plate does not show any appreciable pathology a few weeks later the callus may be seen in a second plate.

In static conditions of the lower back, I like to think that pain, aching, soreness, and tenderness are but manifestations of the same process, differing in degree only, and our comprehension of what is really going on is clearer when we think of them in terms of a threshold. If a muscle or a joint is traumatized by overwork, strain or toxin in the blood, they reach a threshold that is symptomatized by stiffness and in this condition rest alone may effect a cure. With a lesion of more severity a higher threshold is reached with symptoms of soreness and aching and finally if the traumatism is very severe those of pain and muscle spasms are present.

Now why is the lumbar region more frequently affected than any other? The body is built against an anterior load, that is the major part of the body weight is anterior to the bony spine. This means that whenever the body is erect the strong, posterior muscles must be working continuously on an average of 15 hours each day. In the healthy individual, nature is able to restore during sleep the fatigue of the day; in disease or in those who have a faulty posture, this is not completely accomplished. There is a weak point in the lumbo-sacral region anatomically; proving that, biologically, we are not built for an erect posture.

Here there is a break in the continuity of muscles of the lower extremity and the body. Where heavy weights are constantly being shifted these terminal muscles and ligaments must bear the brunt of these heavy strains. A realization of this helps us to more clearly appreciate our problems. Physiology teaches us that a muscle responds more slowly to stimuli as it tires

and we know that every organ has a normal position in which it functions most perfectly and any deviation from that position means some impairment of function. In any deformity or faulty posture some muscle is placed at a mechanical disadvantage and so tires more rapidly than its fellow of the opposite side. This is followed by inco-ordination and when a sudden strain comes the muscles act like a plunging team and some ligament is torn. Nature tries to protect this injury by immobilization with muscle spasm. It is small lesions like this that your eyes are looking for, your fingers feeling for, your history searching for, as well as the grosser lesions more readily found. I have not spoken of nerve lesions, referred pain, differential diagnosis and treatment; neither have I given but a very few of the many methods and manipulation of value because of my time limits as I have tried to focus your attention for a few moments on this ever-present back problem.

I believe that just such men as you, by routine examination, can and will efficiently work out your own salvation, but as long as medical men take but a dilatory interest in back conditions and ignore massage and let patients go away from their offices uncomfortable, they are furnishing the only ground upon which the Chiro stands and reflecting anything but credit upon the science of medicine.

Further, just so long as medical schools do not have efficient courses in mecano-therapeutics and massage, so long will our profession be handicapped, the public suffer, and quacks flourish.

SURVEY OF LESIONS CAUSING LOWER BACK PAIN

(Local and referred)

ANATOMICAL SCHEME

1. **Osseus System** (Local).
 - a. Bone and Cartilage.
 1. Congenital defects.

Asymetry, Loss of parts, Excess of parts, Spina bifida, Pilodidal sinus, Long transverse process of 5th Lumbar vertebra. Sacrolization of 5th Lumbar.
 2. Traumatic lesions.

Fractures (complete and incomplete). Centrum. Lamina, Facets, Spines, Transverse process Penetrating Wounds.
 - Contusion and tears of Periostium.
 3. New Growths.

Malignant (Primary and secondary), Sarcoma, Osteosarcoma, Carcinoma, Hypernephroma. Benign, Exostosis, Chondroma, Osteoma, Cysts, Giant cell Sarcoma.
 4. Infections. Acute and chronic. (Periostitis, Osteitis, Osteomyelitis, Chondritis).

Staphylococcus, Staphylococcus, Gonococcus, Colon, Typhoid, Tubercule, Leprosy, Actinomycosis, Syphilis.
 5. Nutritional disturbances.

Rachitis, Scorbutus, Osteomalacia, Nonuse atrophy of bone. Cartilage absorption.
 - b. Joints and Ligaments (Kyphosis, Lordosis, Scoliosis).
 1. Infections.

Acute arthritis (Serous, Purulent).

- Hypertrophic arthritis, Arthritis deformans, Ankylosis.
2. Metabolic disturbances. Atrophic arthritis. Lack of synovial fluid, Haemophilia.
 3. Traumatic. (Dislocations, Subluxation Stretching of ligaments), Tearing of capsule or ligaments, Sarcoidiac injury.
- 2. Muscular System (Local).**
- a. Congenital defects. (Lack of parts.) Lack of development.
 - b. Infections. (Lumbago, Myositis, Myositis ossificans.) Trichinae.
 - c. Traumatic. (Rupture of belly, Overstretching, Chilling, Puncture wounds, Adhesions.) Scars.
 - d. Atrophy. (Non-use, Pressure, General infections, Malignancy, Toxic Neurogenic.)
 - e. Paralysis. (Flacid, Spastic.) Secondary contractures.
- 3. Nervous System.**
- a. General diseases.
 1. Infections. (Tabes dorsalis, Cerebrospinal meningitis, Paralysis, Agitans, Multiple sclerosis, Infantile paralysis, Encephalitis.)
 2. Degenerations. Lateral sclerosis, Paralysis agitans, Syringomyelia, Paralysis.
 3. Traumatism. (Myelitis, Edema, Compression of cord, all levels.)
 4. Congenital defects. (Spinabifida, Mental deficiency, Little's disease.) Hydrocephalus.
 5. New growths. (Fibroma, Glioma, Sarcoma, Carcinoma of Cord or Dura.) Secondary endothelioma.
 - b. Local disease.
 1. Infection. (Herpes zoster, Neritis, Sciatica, Neuralgia.)
 2. Traumatic. (Pressure on nerve roots and cord, Injury to Cord, Edema.) Haemorrhage, Spinal puncture.
 3. New growths. (Neuroma, Benign and malignant growth of Cord and Dura.)
 4. Neuralgias.
- 4. Vascular System. (Local and referred.)**
- a. Infections. (Thrombosis, Embolism, Infarction, Septicaemia, Pyaemia, Phlebitis.) Malaria. Portal vein obstruction.
 - b. Degenerations. (Arterial sclerosis, Aneurism, Haemorrhoids, Variocosties.) Haemophilia.
 - c. Traumatic. (Haemorrhages, Edema.)
 - d. Heart lesions.
- 5. Digestive System. (Local and referred.)**
- a. Infections. (Appendicitis, Peritonitis, Cholecystitis, Gastritis, Enteritis Protozoan.) Peritonitis, Pancreatitis. Liver abscess. Giant urticaria.
 - b. Obstruction. (Ilius, Constipation, Hernia, Adhesions, Cholecystitis, Pyloric stenosis, Enteroptosis, Thoracic dust obstruction. Cirrhosis of Liver. Ascites.)
 - c. New Growth. (Retro peritoneal sarcoma. Carcinoma.)
- 6. Urinary System. (Local and general.)**
- a. Infection. (Pyonephritis, Cystitis, Ureteritis, Perinephritic abscess.)
 - b. Obstruction. (Stone in Kidney, Ureter or Bladder, Hydronephrosis.)
 - c. Traumatic. (Rupture of Bladder, Ureter, Kidney. Bruising of Kidney.)
 - d. Degeneration (Nephritis).
 - e. New growth. (Papiloma of Bladder, Hypernephroma Carcinoma, Sarcoma.)
- 7. Genital System. (Referred.)**
- a. Infections. (Salpingitis, Endometritis, Vaginitis. Ovaritis.) Prostatitis, Seminal vesiculitis, Epidimiyitis, Orchitis.
 - b. Displacements. (Retroflexion of Uterus, Prolapse of Ovaries or Uterus.) Hydrocoele.
 - c. New growths. (Ovarian cysts, Carcinoma, Dermoids, Fibroids.)
 - d. Physiological. Menstruation, Pregnancy, Sexual excesses.
- 8. Respiratory System. (Referred.)**
- a. Infections. (Pneumonia, Pleuritis, Empyemia, Bronchitis, Tonsillitis, Laryngitis.) Tuberculosis.
 - b. Toxic. (Asthma, Gassing.)
- 9. Mobile Tissues.**
(Anaemias, Leukaemias, Pyaemias, Septicaemias, Edema, Endocrine secretions.)
- 10. Integuments. (Skin, Fat and Fascia.) (Local.)**
- a. Infections. (Furunculosis, Abscess.)
 - b. Traumatic. (Decubitus, Burns, Scars, Contracted fascias.)
 - c. New growth. (Keloids, Papiloma, Epithelioma, Sebaceous Cysts.) Lipomas.
- 11. Postural and Static Derangements.**
- a. Habit. Slouching. Overwork, Lack of rest.
 - b. Occupational. (Gardeners, Moulders, Miners, Masons, Scrub women. Prolonged rest in bed, etc.)
 - c. Improper muscle balance. (Scoliosis, Paralysis of Rectus abdominalis, etc.)
 - d. Tilting of Pelvis. (Compensating scoliosis.)
 1. Congenital dislocation of hip.
 2. Flexion contraction of Hip. (Spasm of Psoas major and Iliacus.)
 3. Adductor Contraction of hip. (Spasm of adductor or paralysis of Gluteus medius.)
 4. Coxa vara.
 5. Perthes disease.
 6. Ankylosis of Hip in adduction, Knee in flexion.
 7. Tuberculosis of hip.
 8. Unequal length of legs. (Fracture, Unreduced dislocation of hip, Osteomyelitis, Ephyseal disease or injury of long bones.)
 9. Contracted pelvis.
 - e. Flat foot, Short Tendo Achilles.
 - f. Club foot, Cavus.
 - g. Tender feet. (Bunions, Corns, Metatarsalgia, Teno-sinovitis, Spur of Os calcis, Arthritis.)
 - h. Improper shoeing. (High heels, pointed toes, short shoes, etc.)
 - i. Acute foot or leg strain. (Overwork, Change from high to low heels, Ground grippers, etc.)
 - j. Sudden increase of weight. Pregnancy.
 - k. Change of vocation.
 - l. Post operative.
 - m. Hysterical.
 - n. Feigning, malingering.
 - o. Worry.

202 Columbia Ter.

DISCUSSION

Dr. J. B. Moore, Benton: We live in an industrial country, a coal mining field, and come in contact with a large number of back complaints. I just want to emphasize the importance of the back symptoms due to tilting of the pelvis and some of the mistakes made in bringing out the true muscle spasm. Ordinarily, with the normal back in the upright position with the weight borne equally on both feet the back muscles are completely relaxed and this is determined by a very thorough palpation, using the whole hand. If the patient is not distributing his weight equally on both feet, there is very likely to be a muscle spasm on one side, showing a difference in the tension of the muscle. Tilting of the pelvis is often brought about in this way. Having the patient walk back and forth, observing him and seeing that the weight is borne equally on both feet, it may be found that the tilting of the pelvis is a postural affair and not the result of muscle spasm or back injury.

That brings out a point in the treatment of back injuries. One of the most deplorable things in the treatment of back injuries is the long-continued use of a brace after it ceases to be necessary. We see that frequently. I think they should have some sort of a support, but not continually. I have seen back cases wearing a brace for as long as a year and a half or two years with the x-ray showing adequate repair.

Dr. J. L. Wiggins, East St. Louis: I do not believe that I can be proved guilty of anything like a lack of interest or care in making back examinations; in fact, I believe it to the contrary. In the hospital for a long period we have had a large number of back injuries. We have had thorough examinations made and a peculiar thing has de-

veloped, that the more care and attention we give towards the examination of back injuries, the more permanent disabilities we had resulting from the conditions, which prior to the careful examinations did not exist. Previous to the period when we determined the amount of disability by careful examination we had a certain number of permanent injuries, but it was very small in comparison to the number we have now. In the last case I had, shortly before I came here, I absolutely refused to have an x-ray examination made of this man because I was afraid, although I knew he had an injury, that if his attention were directed to it, instead of having partial disability as we used to have, he would have complete disability. Of course, that does not apply to lesions of the sacro-iliac joint, in which the only means we have of locating the lesion is to put them through a rigid examination.

I do not know why we should have so many injuries of the back at present and so few in the past. My colleagues did not pay any attention to back injuries, except to put on a few adhesive strips and the patient was back to work in a week or ten days, and now we give the patient the benefit of scientific investigation and some of them do not go back to work in six weeks, sometimes two months.

Dr. G. S. Edmonson, Clinton: The average member of the general public is afraid of having something wrong with his back and there are so many doctors who are so everlastingly afraid that if they do not magnify the conditions the patients will feel they are not receiving enough attention. Consequently, I think there is a tendency on the part of the doctors to magnify these cases in a class of people who are already afraid and this gives rise to a large number of the cases Dr. Wiggins is so worried about.

Dr. J. H. Bacon, Peoria (closing): The reason some of the back cases continue to have symptoms is because they have a focal infection somewhere else in the body. I cannot see why Dr. Wiggins takes the stand which he does because I cannot see why an examination of a case is going to make a permanent injury out of it. There is a distinct tendency on the part of certain classes, and I think that is especially true of those in industry, who are working for someone else, if there is a liability attached to injury, to magnify things. I think that was proven true in Germany before the war where records show it took two or three times as long for an injured workman to recover from a fracture of the clavicle as it did in the United States. I do not think the examination has anything to do with it. If it has got to a place where we are afraid to examine patients because we are afraid we make the patient think he is worse than he is, there is something wrong. It is true that some men are not doing what they should in the way of treatment. I think the chiropractor and the osteopath have taken advantage of our

lack of use of mechanotherapy in cases where there is need for such treatment. These people give treatment without being under the jurisdiction of the physician as a nurse or a masseur is. When you think of what a physician must undergo to gain his profession, you can understand why so many poorly trained and unscrupulous men go into osteopathy and chiropractic work. We should not condemn the man who has a thorough training equal to ours even though he differs from us in his methods, but we should certainly put the stamp of condemnation on any individual who is not trained. I think one thing alone will damn the chiropractor forever and that is the false propaganda they are putting before the public and treatment of syphilis. I do not believe that we should be entirely quiescent and let this thing go on. I think physicians should let the public know in some general manner and not let this propaganda go on unheeded. The general public has the impression that we have not anything on the chiropractors and osteopaths but that they have something on us, which is very far from true.

CHICAGO MEDICAL SOCIETY AND THE HARRISON LAW

MISINTERPRETATION OF THE HARRISON LAW

At a meeting of the Council of the Chicago Medical Society on November 8, the following resolution was adopted: *Whereas* Congress has passed a law to deal with the abuse of narcotics, called the Harrison Anti-Narcotic Act, and *whereas* reports are coming from various sections of the country which make it appear that the Bureau having to do with the administration of this act has apparently gone far beyond the intents and purposes of the act in its enforcement through arbitrary rules and unjustified interpretation, and *whereas* it appears that the rulings and acts of this Bureau are causing much intense suffering to many unfortunate addicts and are hampering physicians in their honest endeavor to properly assist these victims, and *whereas* it appears that many purely scientific and medical questions bound up in this Harrison Act are being interpreted and decided by people of no medical training; *Therefore Be It Resolved* that the Chicago Medical Society appoint a special committee to look into the workings of the Harrison Act from every standpoint and to make such recommendations to the Society as will in its opinion secure due recognition of the medical side of the narcotic problem and lead to governing rules that will have the sanction of the organized medical profession.

People of sedentary habits and indoor occupations should take open-air exercise daily. The trouble is they don't, but they should.

If your daily habits are health habits, your health should be good.

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JANUARY, 1922

Editorial

A HAPPY NEW YEAR

A New Year filled with an old purpose is the very best wish that the ILLINOIS MEDICAL JOURNAL can extend to every physician in the United States. In the "old purpose" that we have in mind lies strength, not staleness. What the medical profession needs more than anything else as a holiday gift is a stocking filled with the spirit of 1776, the gumption of 1861 and the grit of 1917-18. From such a combination can be compounded the forceful comradeship that is required to free the practice of medicine from the bugaboos of the theorists that menace the personal and professional freedom of every ethical earnest doctor in the land. The boys of '76 took the hoof of royal oppression from off the throats of a prostrate nation, still in its swaddling clothes. That no man can dominate another human being as he would a barnyard animal was the proposition demonstrated in the Civil war. Though the ashes of the World War are still uncooled yet the lesson of its conflict was that Kultur and civilization cannot dwell together. What a crime is born against men and the world when the soul of these errors for whose

destruction men died bravely, rises, clad in mouldy cerements to mock the vast army of struggling, underpaid physicians whose motto is "Cure all we can, let the cash come as it will!"

The socialization of medicine is imminent. Back of these rather callous sounding phrases lurk the demons of injustice, incompetency and indolence for the few from which the country has been trying to rid itself ever since the first notes of Yankee Doodle left the ploughshares neglected a century and a half ago. Not to scold but to warn is the statement made.

It is not too late to make the fight. Rather let us gird ourselves for the battle and with banners flying enter the struggle, determined to emerge with honor intact both for ourselves and for our profession. Better a few petty enmities now than destruction later. We must have organization of the right sort and "see it through." With this stern resolve imbedded in our hearts the New Year cannot but help to be filled with promise. It is through children that Mother Nature, and God, and all of human life have spoken always their best and truest ideals. And it is for their children and their children's children that the doctors of today must put down the false idols from their thrones of brass. To ac-

comply with this will insure in so far as mortal hands can do so, not only now but through the days to come.

A HAPPY NEW YEAR!

A WORD FOR OUR ADVERTISERS

Director Harrington of the Medill School of Journalism in a recent lecture before that body, among other things said: "An advertisement is no longer a shot in the air, but real service with a real objective."

Knowing this to be the truth we ask our members to scan the pages of the ILLINOIS MEDICAL JOURNAL, patronize the advertisers found therein, interest your friends. If the members of the State Society awaken to this necessity the future of the JOURNAL is assured, and instead of having to seek contracts, they will be seeking us. The aid of every member is asked in this work; we pledge your patronage when soliciting advertisements; our customers ask to be shown. Mention the ILLINOIS MEDICAL JOURNAL when ordering.

WHAT AILS THE MEDICAL PROFESSION?

Increasing Tendency to Paternalism, as Indicated by federal, state, county and township, as well as municipal interference:

The establishment of a Department of Medical supervision in the United States cabinet will be the next needle's eye through which the poor old medical dromedary will have a pitiable experience in trying to crawl. It will mean the vesting in the hands of one individual surrounded by red tape and government clerks of proverbial intelligence, the medical care of the country. Will Aesculapius turn in his grave? Will George Washington come back and regain us our independence? And this proposed Maternity Bill is only one of the many Soviet jokes thrust onto the desk. This "Maternity Bill" is a legal harri-dan backed by moneyed ghoul.

The woman who sits at the head of the Children's Bureau in Washington will have at her disposal through this bill, the history, personal and private, of every woman and child in the country. The price of this privacy of our female citizenry will be \$10,000 per state to start with as the federal appropriation is to be \$480,000 for the first year, subject of course to congressional fluctuation according to the way the pay-roll

floats. The states will chip in as much for themselves as the government does. Ladies stand up and be card-indexed. Personal history, such as you have given blushing to your physician will be typed, put on cards, giggled over, referred to and published whenever the government employees feel like doing so. Of course they are all on honor—these government employees, but then—and you all pay taxes on giving away this privacy, too.

The county in which you live will have these records, too. So will the city hall in your place of residence. So will the ward captains. If your husband has brought you home a social disease, everybody in your neighborhood will know about it. If a man who is a police character is elected to the city council he can get all this intimate detail about any woman in Chicago, if he chooses, and use it as he sees fit—who will stop him?

Every man with a wife, a mother, a sister, a daughter or any female relative about whom he cares a continental, ought to give them this information. It will go well with the morning grape fruit. The enfranchisement of women would seem to have stripped them of all right to anything savoring of personal modesty in private affairs. Of course, this information must be made public just the same as if they were incarcerated in a prison. What right has an individual to say anything? No right at all, say the bolshevist lobbyists. One for all, and all for one—come on ladies, let us know about the length of time your labor lasted when the last child was born. Germany had this card index system. Russia gave yellow tickets to her ladies of light repute. Come on, come on, let us see whether the women of each aristocratic block will draw blue or red or yellow cards! Surely \$10,000 per state is cheap enough price for information that will lead to such a system of blackmail as America has never dreamed of. Of course the fact that even now few women face childbirth without adequate care—in Milwaukee I believe the number for one year was only two women and they didn't want anything but what they had—doesn't matter. The Bolshevists can get away from facts quicker than oil can renege from water. For facts and sovietism are at loggerheads and facts win out! But this maternity bill will make a

lot of red-tape jobs tying up the medical profession tighter than any umbilical cord.

A card index system has no human sympathy. "Neither the nation nor the state has any income save taxes and imposts. These paternalistic measures run into big money which must flow to the national treasury in constantly increasing floods from the pockets of the tax payers, returning in the tiniest of rivulets after passing through the tortuous, thirsty beds of federal and state patronage sand."

This comment passed upon the situation by one of the sagest minds of the country examples only too well the possibilities of what the country may have to face. A nation so degraded that the most secret processes of nature and of its womankind, to say nothing of the intervention that Divine Providence takes in such matters—that assures no national privacy to the individual—may well be suspected of forgetting the limits between what is right and what is wrong in the way of imposts.

State privileges have been sold before. Public moneys, public properties and public interest have been used in peculiar ways in almost every commonwealth. Need the picture be outlined further? What money can be made out of maternity? Once motherhood is made a negotiable asset of the nation, what protection has motherhood? How long before the nation will become a liability to its maternity?

The provisions of the Sheppard bill, taken up later in this discourse, will bear careful analysis for the sake of our sisters, wives and daughters; for the guardianship of all self-respecting womanhood. The next thing will be lateral marriages. Socialism is so eager to grab everything in sight that it forgets the laws of backwash and ignores the teachings of experience anent the laws of balance!

New York City has just gone through a struggle as a result of the interference with the treatment of drug addicts through attempted lay-interpretation of the Harrison Drug Act and in the proposed new Cotillo bill and the Smith-Fearon bill. With this experience fresh in mind, small wonder that the doctors growl at thought of the Sheppard Maternity bill.

Increasing Tendency to Bureaucracy. Since the war the United States is bureau crazy; swivel chairs die hard. There are a lot of women and men, too, who can't earn a living any other way.

If the corporate interests who install these bureaus paid the salaries for the red-tape winders out of their own treasures it would not be so bad, but the public exchequer, fed by taxes direct and indirect on the purses of the citizenry, keep up these cogs in the wheels of corporate interests. Anybody who tries to get a seat during rush hours on street cars with the transportation companies working on politic franchises, ought to know how far the common citizen will get with a few bureaus running him. So long as it was anything but the human body, the source of health or ill-health, that the bureaus tampered with the situation was far from being at its worst. But having stolen all the other public utilities from light and heat and transportation and water power and with a weather eye fixed upon the aeroplanes and the ether, naturally it was time somebody walked off with the citizenry. It is about to be done; the bodily theft of the American people is about to be consummated through the sovietized, bureaucratized government that will standardize the doctor and ruin the people.

Standardization of a man in the self-sacrificing professions where the element of personality is the breath of life to the work is suffocation of all effort. The indifferent man keeps his job and does his indifferent work. The genius dies—perishes at the stake. Comes first stagnation, then retrogression. Too much sovietism! Look at Sparta where the state was supreme to the citizen. Glance at Russia begging for bread, writhing in her squalid ruins. Without the individual the community cannot live. The cell must live or the tissue cannot be. Destroy cell life and watch the body fall. The state is structurally the same. It is the keynote of existence. Mere men can't fight it. A frightful Frankenstein is being built to kill the profession that has saved the nation and that in turn will crush the hands that build and the nation that receives.

From Boston comes a wail that is so sincere, so rooted in prophecy that it should be repeated right here. Let it be quoted:

The individual members of the entire medical profession in the United States face dangers of which they are but dimly aware. We individuals are apt to think that the medical problems will be satisfactorily solved by those whom we have elected officers of our various societies. But such is not the case. The men elected to such offices can only act an expression of their own views, which in many instances does not coincide with

the view of the rank and file. It is, therefore, not as an alarmist that I appeal to the individual practitioner to inform himself on every question that comes up for the consideration of the profession, form a definite opinion, and let the result of his thinking be known to his fellow practitioners and the elected officials of the various societies. If in the years to come social medicine has us enmeshed in its irksome bonds, let us blame only ourselves. We are not to blame that laws have been suggested which will bind the physician hand and foot as a vassal of the state, but we shall be to blame if such laws secure passage. We are coming more and more under state or social espionage. It has even been proposed that every physician record names and addresses of all patients with copie of prescriptions. Florida even has passed a law transferring bith record custody from the Health Department to county judges, the judges to receive a fee twice the size formerly allowed. Medicine faces the possibility of being controlled by bureaus, political in origin, capricious in administration, and controlled by prejudice and ignorance. Each year brings home concrete examples of these things, and eventually we must, if we maintain our independence as a profession, arouse ourselves to that individual responsibility which is ours.

Surely you realize the truth of those statements. The law, the successor to the physician!

Cognizance should be taken too of attempted legislation in Oregon. That one particular bill fell by the board does not mean as much as that this erratic idea should ever have become incorporated into a bill. Think of physicians being asked to consider seriously the task of writing prescriptions in triplicate and in English, of detailing the disease symptoms and of why the drug was given. Any man of medicine who has ever gone through an epidemic, whether influenza, typhus, typhoid, yellow fever, scarlet fever, smallpox, measles, mumps, or even chicken pox, stands ready to consign to the state insane asylum the perpetrator or perpetrators of such a presumably possible premise. Think of it! Prescriptions in triplicate! Prescriptions in English! Such a promulgation might well be backed by the proprietary interests whose millions of dollars of nefarious profits have been blockaded by the warfare against "Secret formulas" as "panaceas" for everything from corns to gallstones. "John Jones had a running nose, etc., etc., and so I gave him quinine and salts, etc., etc." It is worse than a farce. It is a nation loose in the head.

In Wisconsin there was enacted a bill limiting

a physician's fee for a liquor prescription to one dollar. This bill was passed and signed by the governor.

In Illinois this same bill was introduced but defeated. A member of the reference committee in the house, when the bill was on hearing, remarked that this bill was merely an entering wedge—that ultimately legislation would be passed that would prohibit a doctor from prescribing any medicine of any kind.

In California and again in Oregon, in 1920, wise men were kept on a hot griddle by four freak referendum attempts that earned finally the sobriquet of the "vicious squad." This list includes the chiropractic initiative amendment, the anti-vaccination amendment, the anti-vivisection amendment and the so-called poison act. There is food for soul indigestion in each member of the "quad."

In Michigan an endeavor was made to introduce a bill seeking to standardize the fees that physicians and surgeons would be allowed to charge for their services. Of course, it is vastly more important that a doctor should be told by the legislature how much he ought to receive for the labor incidental to pulling a man back from the grave than it is for the traction companies to be told how much they can charge for pulling a man from his home to his place of business.

In Wisconsin again, Bill 67-A was introduced that would place on an equality with surgeons and physicians "Christian Scientists, Napropaths, Osteopaths and Chiropractors." This was to be done especially in relation to the Christian Scientists and the surgeons in cases of injury to employes in relation to the Workmen's Compensation Act. Socialism could do itself no better turn than to be treated for a broken neck by a flag-bearer for Mary Baker Eddy. Unfortunately the socialists stand less chance of being the goats for this monstrous maladministration of justice than do several millions of dependent women and children.

This is quite in line with the socialistic scheme of making a man's license to practice medicine a privilege from politicians rather than a right devolving from his knowledge and skill. The medical re-registration act would have done that very thing. Under its provisions the issuance, retraction or continuation of a man's right to practice medicine would be contingent upon the

whims and fantasies of political temper. A license might be revoked, refused or withdrawn if the "Mistah Bossman" running that particular district through the nests of involved bureaus got a grouch against any certain physician, and au contrairie, the most unprincipled scoundrel in the state might be made the Chief High Snake of the whole caboodle of medical men.

THE A. M. A. COUNCIL ON HEALTH AND PUBLIC INSTRUCTION AND AN ANTI- SHEPPARD-TOWNER MATERNITY BILL RESOLUTION

A high official of the A. M. A. wrote the home office shortly before the 1921 meeting of the organization in Boston, and suggested that the Council on Health and Public Instruction should prepare a resolution condemning the Sheppard-Towner bill. This information has come from a reliable source.

The Council took the matter under consideration. Then it voted to refuse the request. State medicine advocates included in the personnel of this committee were sufficiently influential to prevent the preparation of the resolution condemning the Sheppard-Towner bill.

This, too, in the face of the fact that it is admitted by a prominent executive of the A. M. A. that ninety-eight per cent. of the medical profession of the United States is opposed to the Sheppard-Towner bill and its allied nefarious legislation.

If the resolution asked for by the official of the A. M. A. prior to the Boston session had been prepared and presented this action would have afforded a powerful weapon with which to combat the passage of the bill at Washington, D. C. But in spite of the wishes of ninety-eight per cent. of the physicians of the United States and directly against their best interests, the preparation of this resolution was refused by a few men, holding committee appointments, and supposedly "comrades in arms" but apparently a tribe of Judas come to feast! This handful of state medicine advocates negatived the justified and earnest desires of their fellows! And why? "They who seek shall find"—surely the answer lurks not far away. This is not the first time that a kiss has meant betrayal.

Presumably the disciples of the bolsheviks who would socialize the practice of medicine and who control our great organization meant to be

honest with their brother physicians. But were they? When Dr. Chas. E. Humiston, President of the Illinois State Medical Society on July 18, 1921 went to Washington to interview the Committee on Interstate and Foreign Commerce, and saw these men and talked to them, the scales were literally torn from his eyes.

Dr. Humiston appeared before the committee in opposition to the bill. He was put in the position of having to apologize for the inactivity of the A. M. A. in combating the Sheppard-Towner bill. In a cross examination of Dr. Humiston by some of the members of the committee it was insinuated repeatedly to Dr. Humiston that the A. M. A. was not against this legislation, at least not actively. Dr. Humiston tried to bolster up the fact that the Journal of the A. M. A. carried an editorial policy of opposition to the Sheppard-Towner bill. As a matter of fact maternity legislation had been agitated for a long period of time and the Journal of the A. M. A. is a weekly publication, and yet prior to the appearance of Dr. Humiston before that committee only one feeble anti-maternity editorial and a second "near" editorial protest had been printed in the Journal of the A. M. A., and the editorial seemed to have attracted no attention. Certainly it was not on file with the Conference Committee on Interstate and Foreign Commerce. Had the officers of the A. M. A. been openly fighting the Sheppard-Towner bill, as they should have been doing, this legislative committee certainly would not have had the impression about the matter that was given to Dr. Humiston.

All of which was very hard on Dr. Humiston. He knew all about that ninety-eight per cent. Also he knew all about the Council on Health and Public Instruction. His position was delicate, indeed.

Again, although many "Big Guns" of the A. M. A. kept patting the officials of the Illinois State Medical Society and the other Illinois fighting doctors on the back for their "fine work" in opposing the writing upon the statute books of the country, bolshevistic rot that belongs in Russia, these same "Big Guns" did the "gun-shoe act" when it came to their own daylight efforts against Sheppard-Towner. They may have launched laudably strategic campaigns against this legislation but the result doesn't prove it. They claimed to be "laboring in the

dark." It was in the dark, all right enough—so much in the dark that the shadow of this toil rests still upon the men concerned. Where their opposition to socialization of medicine is involved they are certainly not dwelling on the same street with Caesar's wife!

Do all the doctors of this country know that not one representative of the Council on Health and Public Instruction, and that not one controlling executive of the A. M. A. appeared before the committee in Washington to plead for the destruction of this outrageous piece of legislation or to keep faith with the rank and file of medical men throughout the country? If they don't, it is time that they should, and that these same doctors shall begin to gird up their loins and crank up their "flivvers" for a direct shoulder to shoulder, wheel to wheel attack upon the false faces that sit around the council tables of the A. M. A.

When this fight started against the Sheppard-Towner bill, neither the Illinois State Medical Society nor any other body could get any open co-operation from the seats of the mighty in the A. M. A. There were significant shrugs and promises of great things to be done under cover. All this pussyfooting has brought about what? The passage of the Sheppard-Towner bill and the sale into bondage of the working physicians of the country and of their profession—that sacred trust handed to them from the martyrdom of hundreds of thousands of their hero dead—the obscure but never failing doctors who heal and save the masses, not the classes of the people. Two-fisted, two-faced—the men of the open palm and closed heart and palsied ethics care not where they strike.

If the A. M. A. officials who have permitted themselves to be literally seduced by the will-o'-the-wisps of bolshevism, really hold in high honor their legal, honorable ties why was there no cognizance of what happened in Massachusetts two years ago? If our organization had taken the stand it should have taken at that time, when state maternity legislation first poked up its vicious head and demanded legal, statute recognition, the whole unspeakable atrocity might have been put out of the way right there. It would never have spread out its tentacles, crept all the way to Washington, and necessitated a fight there where right has been defeated and the yoke of

cheap bolshevistic slavery laid heavily upon the neck of the profession. Who is responsible for this? Why was this neglect permitted? Why was not Sheppard-Towner maternity legislation fought out in Massachusetts as it should have been, and as it could have been by direct, active, efficacious warfare on the part of the A. M. A.?

Many times on these pages it has been printed that there are too many state medicine advocates making up the personnel of the committees that do for the A. M. A. The statement is repeated here, both ways for emphasis. They *will* "do for the A. M. A." before they finish.

They have almost "done for it" now, and for the doctor himself in the bargain! Why? Ask the man in the soft berth. He knows.

In a large measure committees have untold influence in shaping the policies of the A. M. A. The vicious circle unrolls itself at touch. Men in the easy jobs who want to keep them naturally want placed on these committees the men who will help them to keep the easy jobs handed out to a few by the gold grabbers who dole the masses a pint of "welfare work" as a sop while they make off with a hogshead full of the "better part."

The "health center," the "free hospital treatment for taxpayers," the "social settlement," the "free dispensary" make a lot of well-paying jobs for a herd of satellites for whom? Look on the records. Some of them may be double-faced but they tell the tale. They bear out the statements made here and elsewhere by those men who know the facts, who see what is being done and who do not sit in a lethargy and watch the health of a nation and the good faith of medicine fed to cheap politicians, lobbying diplomats, silk lingeried parlor bolshevists and silver plated socialists.

Keep 'em off of the committees! Keep 'em out of high office in the A. M. A.! Some one is responsible for the appointment of the men who make a committee. Whoever this man is he should be brought to account. If he will not seek a rope himself, nor a swaying cliffbound tree, then let this Judas come to judgment about the council board.

For it is high time that the official, or the officials, responsible for the selection as committee appointees of the A. M. A. from a group of individuals who are theorists long on thought and short on deed, or who are soviet government

bugs, or state medicine neophytes, should be brought to account by the rank and file of the profession. Demand should be made and should be enforced for the appointment on committees in the A. M. A. only of men who are in touch and in sympathy with the interests and desires of the medical profession as a whole. Men who want to conserve, not destroy, medicine. This is not done today. The wish of ninety-eight per cent of the doctors of the country was overridden without excuse by a miserable two per cent of false leaders. Shame upon them! Let justice be invoked and achieved.

The reprehensibility of the action fails to lessen upon close inspection. Rather it magnifies to its true size when the light is turned upon it. Ninety-eight per cent of the medical profession stands against socialistic legislation! Yet two per cent tried to impress the Congress of the United States that such law is the desire and coveted hope of doctors throughout the land! It should be a penal offense for executives of a great and necessary organization to place a few half-baked bolshevists in such an official position that these few can nullify the decisions of ninety-eight per cent of their associates!

For kings this has been a bad season. When the A. M. A. officials insist upon keeping at its forefront crowned heads in the close routine of a self-appointed dynasty, the A. M. A. is threatened with an acute attack of political colic for which the safety-first remedy must be nothing more or less than a thorough cleaning out. Can the A. M. A. read the writing on the wall and learn the lesson? Or are the eyes of the officers of the American Medical Association blinded by blows from a fist of gold?

Real friends tell us our fault. In this connection we desire it distinctly understood that it is love for the A. M. A., rather than animus against the officers, that causes this cry from Macedonia. Since the A. M. A. owes its present greatness to the democracy who bore it, certainly men elected to temporary power should see that the debt is paid. The A. M. A. should be maintained as a democracy and not permitted to drift into an oligarchy.

As we said editorially in our JOURNAL in November, 1920, the physicians of this country are determined to make the A. M. A. on the Lincolnian lines "of the profession, for the profession,

and by the profession," or, to paraphrase Lincoln's words, for the people, by the people, that the A. M. A. may not perish."

DOCTOR, PUT YOUR PROSPECTIVE LEGISLATORS ON RECORD

The notorious Sheppard-Towner "maternity bill" is now a law. An attempt will be made in Illinois at the next legislative session to have Illinois co-operate with the national law on the 50-50 basis. We must join with the taxpayers of the state and fight this nefarious law. Get busy. Educate, before the primaries in April, every candidate for the legislature, and if possible commit them to work and vote if elected against all forms of "paternalism," and especially against submission to the Sheppard-Towner bill.

GOVERNMENT OPERATION ALWAYS COSTLY

"It is a wholly Prussian idea that the state has more knowledge than all its citizens, and can only lead to disaster. When the 150,000 physicians, 220,000 nurses and 2,400,000 annual mothers depend for instruction and advice on a single political bureau at Washington, America will be another failure like Rome and Russia."

"The proposed Public Welfare Department is not needed by a clean people in a clean community. People and communities found to be not clean can be attended to without the extravagance, false notions, red tape, class privilege and grave danger which would attend such a new department of the government."

"Never yet, I believe, has an enterprise been conducted as economically by the government as when in private hands; therefore when the government goes into welfare work, we shall be in for a system that will be both costly and tyrannical."

The unquestionable tendency of the Capper-Fess Physical Education Bill and similar legislation is toward the designation and control of the individual's form of medical treatment either directly or indirectly through state officers by a paternalistic central government. This is the intent of the bill, whether expressed in the bill's text or not, and this would be the result if passed. Real Americans do not wish, and will resist, any effort to train and form their bodies

or their minds according to any cut and dried standards. Individual freedom and initiative must and will be preserved.

DOCTORS

Will you do your share in securing
100%

BIRTH REGISTRATION
in Illinois?

Advisory Committee Health Department

POWERS OF HEALTH OFFICIALS DEFINED

RIGHT TO EXAMINE, QUARANTINE INDIVIDUALS
DEFINED BY MICHIGAN'S HIGHEST
TRIBUNAL

The Supreme Court of Michigan on December 20, 1921, handed down a far reaching decision in the case of Nina M. Rock, of St. Louis, against Thomas J. Carney, Alma health officer, Ida B. Peck, Alma nurse and social service worker, and Mary Yorrigan, manager of a Bay City hospital.

The Supreme Court of that state says that the power of health officers to examine persons for dangerous communicable diseases and to commit those found infected to hospitals against the will of the patients is strictly limited.

Miss Rock, who was 18 years old at the time, was compelled to submit to an examination for a malignant disease, was declared to be infected and compelled to go to the Bay City hospital for treatment. She sued the officials concerned and the Gratiot circuit court dismissed the suit on application of the defendants.

AUTHORITY EXCEEDED

The supreme court finds that the lower court was in error in dismissing the suit. In an opinion written by Justice Wiest and signed by Justices Moore, Bird and Stone, it declares that the officers exceeded their power in conducting an examination without cause shown and in requiring the young woman to remain in a hospital instead of being treated in her own home.

After saying that the courts will not endeavor to review classifications of communicable diseases made by competent officials, Judge Wiest declares that, "the method adopted to prevent the spread thereof must bear some true relation to the real danger, and must not transgress the security of

person beyond the requirements of public necessity.

QUARANTINE AT HOME

"The law has not yet conferred on boards of health the authority to revive the old-time custom of examining into the conduct of the young people or of holding a general inquisition for the discovery of certain diseases. I have been unable to lay my finger on any statute authorizing or even sanctioning by inference the procedure adopted in this case.

"Health officers have no right to refuse isolation in the home by quarantine and placard notice thereof and to commit diseased persons to a hospital. Children with communicable diseases could be taken from their homes and sent to hospitals.

"It would be an intolerable interference by way of officious meddling for health officers to assert and assume the power of making physical examinations of girls at will."

The Supreme Court in rendering the opinion said:

"The law has not yet conferred on boards of health the authority to revive the old time custom of examining into the conduct of young people, or of holding a general inquisition for the discovery of certain diseases. I have been unable to lay my finger on any statute authorizing or even sanctioning by inference the procedure adopted in this case. Health officers have no right to refuse isolation in the home by quarantine and placard notice thereof, and to commit diseased persons to a hospital. Children with communicable diseases could be taken from their homes and sent to hospitals. It would be an intolerable interference by way of officious meddling for health officers to assert and assume the power of making physical examinations of girls at will."

This decision of the Supreme Court has brought out some tart comments in the Daily Press; for instance *The Detroit Free Press* in its issue of December 23, 1921, under the caption "A Timely Rebuke" says Editorially:

"There is more than ordinary general interest in the decision of the supreme court of Michigan in the case of Nina M. Rock, a young woman who was compelled by a local health officer to submit to an examination to determine whether she was suffering from a malignant disease and later was

forced to go to a Bay City hospital for treatment. For the ruling of the court puts a check on a paternalistic tendency which, whatever its excuse, is a bad and dangerous thing and destructive of individual and family right."

We believe the court in Lansing made a very important statement when it said:

"That some boards of health and some physicians have been much prone to adopt the high handed arbitrary general policy the supreme court says they have no right to follow is pretty generally apparent. It is only a few days since here in Detroit a father was obliged to go to court to prevent the authorities from arbitrarily taking his son to a hospital for a tonsil operation. The motives of official acting thus may be of the best, but the judgment which betrays them into forgetfulness that after all there is such a thing as personal liberty in America, and that even in these degenerate days parents have a certain degree of control over their children, is exceedingly poor judgment; and it needs just the sharp rebuke the court has administered."

LT.-COL. HENRY SMITH CONDEMNS THE NATIONALIZATION OF MEDICINE —HE SERVED THIRY YEARS UNDER A SECRETARIAT

THERE IS THE PETTICOAT AND POLITICAL
BACK DOOR TO ALL SECRETARIATS

The most picturesque figure at the meeting of the Ontario Medical Association, June, 1921, was Lieut.-Col. Henry Smith, of the Punjab Armitsar, India, the celebrated eye surgeon who has revolutionized cataracts surgery, and has personally operated on 50,000 patients by his new method.

IS OPPOSED TO NATIONALIZATION OF MEDICINE.

One of the most noted of individualists, and a man who has achieved fame and distinction, in spite of being in service, it is surprising that he should have strong news regarding governmental control. In an address before the O. M. A. and later in a personal interview, Col. Smith said: "It would be interesting for the profession and public of Ontario to know a little of the other side of public health. Preventive medicine and the care of school children can be properly done by state organization, but there is need for caution in these days regarding the extension of state medicine, when the atmosphere is full of communizing, subsidizing, and propagandizing everything on the basis of the war machine, and to such a degree, that the human being to all appearance would become an organized automation.

"Team work is necessary for war in every de-

partment. The tendency is to continue this in every sphere of life in peace, on the part of the propagandists, who do not take human nature into consideration. When examined in the light of candid observation, human nature rebels against communistic theories. The child at his mother's knee is not a communist. It has its private property and fights for it. It is an individualist. The success and achievements of the world, since time was, has been based on the individualist.

"Now let us come to the secretariat under which a state medical service such as proposed would have to serve. First in command would be the politician who would be your boss—the health members of the cabinet. Well politicians are the same the world over. They have to cater for votes and will sell their mother if she stood in their way. He must have a medical secretariat to placate the profession, to make believe that they will be safe in the keeping of the medical secretariat."

Don't you trust this plausible issue. The political boss will take great care that every one on the staff is a "will man," that is, a thoroughly pliable man who will sacrifice the profession to the requirements of the politician and he will have no trouble to find such, as he will always have advancement and decorations for such as play his game. I have served thirty years under a secretariat, and secretariats are the same the world over, I have throughout fought for my official rights—my right to think and to act as I thought best, I have never really lost a fight with them, but, I have always been told that government did not approve of my tone to my superior officer. I had as fine a secret service of my own as was in the world. I knew that that reply meant that I had won my case—if I had not won I would have been entertained to stronger language. The plans of these people who are pondering to the shibboleth called communism, which has no basis in human nature, would lead you to believe that you had rights under the proposed system. Make your minds easy on this issue. You have no rights. Those nice rules and regulations are not on the wall to delude the innocent. You have no rights. Fight for your rights and you will promptly be sent to the Isle de diable of which every government has many, and if you press for a decision knowing you have won your case you will be sent to the 7th Lik, for no secretariat can stand being brought down openly by a subordinate officer.

Then there is the petticoat and political back door to all secretariats. You may, from no evident cause, be transferred, and later find, that either or both of these interests had been at work to get your job for some friend. Once a secretariat has you by the throat they can do anything short of putting you in the family way. The day you consent to the nationalizing of medical profession, away goes your personal pride, your personal dignity, and your independence. There you are "organized" for team work—where no one is responsible and every one is mixed up in responsibility—where you have to bow and give blind and implicit obedience to orders however absurd—and

to do this with a good deal of grace too. The lout or third class members of the profession under this system would be better off financially and that is all that interests such men, but the career open to first and second class men would be a dog's life which would attract no ambitious young men. Team work is called great, yet it is great only in turning out stuff in the arts or sciences in quantity—and would turn out stuff which would dirty a lot of paper in medicine—but team work never made a thinker. Thinkers are not born every year, and there are the men, who are mentally so proud that this system would perish them. In my long and varied experience of secretariats, I am convinced that a man who can fight for his rights throughout a long career and officially live, is a big enough man to rule a stall or to command an army against Marshal Foch. He will never get promotion. You are not allowed to think. There is nothing for you but blind obedience of orders. Do not think for one moment that promotion goes by merit. Merit is far too brassy a claim for any secretariat to entertain. Secretariats have ability, but have to promote mediocrity. Promotion goes to anyone whose head has not been too often under water, men of genius are by nature too proud to do the bowing and scraping necessary to advancement under the secretariat. My advice is not to allow the communistic propaganda to go by default, but to speak out your minds, and to vote against it, and to persuade labor that such a scheme is degrading them by treating them as paupers at the curb of the taxpayers. The taxpayer is a very patient animal, but there is a limit to patience. Persuade labor that human nature in the doctor is the same as human nature in the laborer, namely—that the doctor, under this scheme will get his money with the minimum of expenditure of energy and that they will get an indifferent service. Persuade the taxpayer that everything of the kind he nationalized will cost him very high for the services rendered, and point him to the temporary nationalization of railways during the war as an example. Anything which private enterprises can manage is more efficiently done by private enterprises than by the state—gives a better and a cheaper service, and is more satisfactory to all concerned.

My advice to you is to be opposed openly to this insidious thing for all you are worth and to let the world see that we of the English speaking race love our personal dignity, our independence and our honor more than we fear death.

—Niagara Falls Evening Review.

WHAT ONE OSTEOPATH THINKS HE IS

Some people would not know an osteopath if they met him on the street, in the hospital, or in the morgue, for some people are ignorant (there's the rub) and think him a "rubber."

Here is what one osteopath thinks he is and even says he is, and it's funny:

The best educated physician and surgeon is the

osteopathic physician and surgeon. He studies all the books and diagnosis and uses the instruments also of the M. D., except medicine. But he has a spinal diagnosis and treatment the other doctors do not study or understand. This is why some cases are only cured by the osteopath. He is not a "rub doctor" and never rubs. Only ignorant people imagine that he "rubs." If you have any chronic trouble see an osteopath at once. He may cure you. Young men or women who want to take the six year physician and surgeon course at one of the colleges, see Dr. L. V. Read for particulars.—Spring Valley (Minn.) Mercury.

WHAT THE DOCTORS WANT

ON SURRENDER OF ALCOHOL PRESCRIBING AND HEALTH INSURANCE DOCTORS VOTE "NO"

REFERENDUM VOTE TAKEN BY "MEDICAL POCKET QUARTERLY" SHOWS SENTIMENT OF AMERICAN

PHYSICIANS OVERWHELMINGLY AGAINST

BOTH PROPOSITIONS

To the proposition duly made and presented to the physicians of the United States that they transfer to some Government agency the privilege granted them by the Volstead Act to prescribe alcohol when indicated, the American medical profession answers emphatically "No."

The referendum vote taken on this question by the *Medical Pocket Quarterly* to establish what is actually the sentiment of the profession on the question showed 76 per cent of the votes cast against the surrender of this privilege to the Government to 18 per cent in favor of surrender, while 6 per cent failed to vote.

The total vote cast is the largest, most nation-wide and most representative vote ever cast by the physicians of this country on any single subject and shows a significant solidarity of sentiment and unanimity of viewpoint.

Physicians of every state in the union voted in this referendum, including practitioners in all the states of the south and west which were running on a prohibition basis before the enactment of the Eighteenth Amendment. Country, as well as city, physicians participated in equal amount, the vote as a whole epitomizing clearly the unwillingness of the medical profession to relinquish the prerogative they enjoy, even if they all do not exercise it, for personal or other reasons.

In analyzing the votes' cast, it is proper to state that all who voted against the surrender to the Government of the right to write alcohol prescriptions when in their judgment an alcoholic stimulant would be beneficial to their patient, did not vote "NO" because of any pre-disposition in favor of alcohol as a useful medication.

In the view of some physicians the proposition to take this privilege from the medical practitioner would establish a dangerous precedent, opening the door to the subsequent diversion from him of other privileges now accorded him, whenever it suited the

caprice, prejudice or interests of folks who had an axe to grind, a grudge to satisfy, an ulterior purpose to serve or a personal advantage to exalt.

Still others believed that even if they personally did not agree with their fellow practitioners who consider alcohol a helpful and valuable medical agent in the treatment of certain diseases, these practitioners should not be deprived of the right to prescribe it whenever they deemed it proper. Such an inhibition, they held, would be a gratuitous interference with the practice of their fellow practitioners and the means they employ to achieve the cure of their patient or the mitigation of their suffering, if curable. Medical thought in the use of remedial agents, not be-

vote cast was still more overwhelmingly against the introduction to this country of this form of European socialism.

Here the cities where the industrial classes live and which should be most vitally affected were supposed to be the main opposition to this type of legislation, but the vote shows the country as deeply opposed to it.

Compulsory Health Insurance touches a peculiarly tender spot in the hide of the physician—it strikes a body blow at the heart of his pocket book. In voting on this question, a number of physicians stated that if Compulsory Health Insurance became a law they would forthwith quit the practice of medicine. Others added they would never serve on any insurance

QUESTION NO. 1

(Shall the right to prescribe Liquor be transferred from the Physician to the Government?)

	No	Yes	Blank
Alabama	217	40	65
Arizona	32	15	2
Arkansas	197	68	17
California	473	97	36
Colorado	168	34	19
Connecticut	271	36	21
Delaware	39	7	5
Dist. of Columbia	119	25	12
Florida	102	34	10
Georgia	256	70	22
Idaho	49	21	1
Illinois	1657	407	130
Indiana	684	172	50
Iowa	498	163	65
Kansas	300	97	36
Kentucky	419	88	24
Louisiana	158	24	18
Maine	196	30	14
Maryland	226	65	16
Massachusetts	697	98	48
Michigan	431	134	36
Minnesota	227	79	22
Mississippi	29	12	7
Missouri	703	263	52
Montana	43	20	7
Nehraska	191	98	17
Nevada	18	9	0
New Hampshire	100	17	6
New Jersey	686	113	49
New Mexico	41	19	2
New York State	2399	331	133
North Carolina	200	53	19
North Dakota	59	25	6
Ohio	1163	306	66
Oklahoma	244	76	14
Oregon	125	66	15
Pennsylvania	1802	290	113
Rhode Island	70	5	7
South Carolina	102	48	14
South Dakota	96	26	6
Tennessee	392	101	29
Texas	581	175	18
Utah	44	17	7
Vermont	108	23	6
Virginia	311	61	26
Washington	160	85	17
West Virginia	206	41	15
Wisconsin	368	92	28
Wyoming	25	12	1
Alaska	1	0	0
Canal Zone	4	0	1
No	17687	=76%	
Yes	4208	=18%	
Blank	1350	=6%	

QUESTION No. 2

(Are you in favor of Compulsory Health Insurance?)

	No	Yes	Blank
Alabama	258	42	22
Arizona	35	9	5
Arkansas	226	41	15
California	534	38	34
Colorado	185	21	15
Connecticut	290	17	21
Delaware	39	7	5
Dist. of Columbia	120	26	10
Florida	108	28	10
Georgia	276	48	24
Idaho	63	6	2
Illinois	2015	100	79
Indiana	799	70	37
Iowa	607	54	65
Kansas	362	48	23
Kentucky	454	49	28
Louisiana	157	24	19
Maine	210	18	12
Maryland	252	37	18
Massachusetts	736	59	48
Michigan	544	25	31
Minnesota	273	35	20
Mississippi	35	8	5
Missouri	777	208	53
Montana	54	12	4
Nehraska	275	20	11
Nevada	22	5	0
New Hampshire	100	12	11
New Jersey	789	27	32
New Mexico	49	11	2
New York State	2637	118	108
North Carolina	219	35	18
North Dakota	73	12	5
Ohio	1418	66	51
Oklahoma	266	50	18
Oregon	129	56	21
Pennsylvania	2029	90	86
Rhode Island	72	3	7
South Carolina	118	29	17
South Dakota	108	17	3
Tennessee	435	64	23
Texas	623	127	24
Utah	54	9	5
Vermont	124	7	6
Virginia	312	54	32
Washington	219	29	14
West Virginia	217	32	13
Wisconsin	437	31	20
Wyoming	37	1	0
Alaska	0	0	1
Canal Zone	4	0	1
No	20176	=87%	
Yes	1935	=8%	
Blank	1134	=5%	

ing standardized, and physicians being of different minds concerning the merits of the drugs they prescribe, no physician, they say, has an inherent right to impose his personal preferences upon others whose experience persuade them to think differently.

Thus the overwhelming vote against any change in the present statute.

On the other question of Compulsory Health Insurance, submitted to the physicians of the nation, the

panel, even though assigned to it by state authorities, on which they would be obliged to give their services, demanded by advocates of this legislation.

On this question the medical profession, as shown by its vote and the statements accompanying it, is prepared to fight to the death, without quarter or compromise.

The total vote by States on these two questions is tabulated above.

PEACE TIME TAXES WILL EXCEED TAXES DUE TO WAR STOP EXTENDING FEDERAL AID TO LOCAL GOVERNMENT

Bulletin No. 44 November, 1921, published by the Civic Federation of Chicago, says:

STOP EXTENDING FEDERAL "Aid" TO LOCAL GOVERNMENT OR PEACETIME TAXES WILL EXCEED TAXES DUE TO WAR

This bulletin Discusses Fiscal Phases of the Towner-Sterling (formerly Smith-Towner), Sheppard-Towner, and Kindred Bills

Federal taxes are higher and more generally burdensome than ever before in our history—due largely to the world war.

From every quarter comes the demand for a lessening of the burden.

In the face of this we find, pending in Congress, measures designed to add at least \$169,000,000 at once to the normal burden of the national Government. Of these, measures carrying more than \$115,000,000 and paving the way for increasing Federal appropriations of at least ten times that amount within the next decade are backed by a nation-wide propaganda of highly organized and subtly persuasive character.

This \$115,000,000 (plus) is not, however, to be expended under the supervision of the United States Government, which is to raise and appropriate the revenue. It is to be distributed to the several States and expended under supervision of the States or the local governments within them. Thus no government, over which the people have control, will be responsible directly to the voters for the expenditure of this large (and constantly growing) sum. The national Government will not be responsible because it has nothing to do with the expenditure. It merely appropriates. State and local governments will shoulder no responsibility, because they will be spending money which will not be reflected in the State and local tax bills, for which alone local governments can be held responsible.

If the pending measures (and the long line of similar bills waiting to be launched if these succeed) are enacted, citizens in the near future, finding their income tax bills quite as large as ever, will have nothing in these bills to show how much of their payments to the Federal Government are going for local expense or for local extravagance.

AVERAGE INCREASE, \$10 PER FAMILY

These proposed Federal "aid" measures will mean the raising of at least an equal, and probably a larger, additional amount by local taxation, because the rule of "Federal aid" is at least "fifty-fifty"—a dollar, or more, of local expenditure for every dollar received from the United States Treasury. Calculating that \$115,000,000 is practically \$1 per head of population, or about \$5 a family, we may estimate that these proposed measures will through national and local taxation add at least \$10 a year to the burden of each

family, which may grow to \$100 per family in the next ten years.

Even if a State does not feel that the particular activity outlined in some "Federal aid" project is necessary or desirable, some public officials or candidates will effectively urge that the new machinery of local government should be created in order to enable the State to have her share of the "Federal pie." Thus, "Federal aid" is a bribe to local extravagance and unnecessary expenditure.

Again, the State and local official, who generally is under pressure from various quarters to secure more and more revenues when he is able to secure from the United States Government a substantial amount of money, will be able to point to his local tax rate which, in the future (certainly under the plan of financing one-third from the Federal treasury, one-third from the State and only one-third from the local tax as is advocated by the school people supporting the \$100,000,000 Towner-Sterling Federal aid bill—formerly the Smith-Towner bill) will represent only a small part of his total expenditure, and say:

"See how low your rate is for this (or that) purpose. We shall have to raise it."

CONFUSION AND HIGHER LOCAL TAXES

Thus in the confusion of accounts and lack of responsibility not only will Federal burdens for normal expenses of national Government be higher than ever before, but local taxes, already very high, will go to limits heretofore undreamed of, and even possibly confiscatory.

The support which has put most of these pending measures into prominent positions in Congress is that of the various women's organizations. We believe upon more careful consideration of the points involved, the women of the country will find—as the men after bitter experience have been finding—in organization work, that it is unwise and unsafe to listen to every propagandist who comes along and then endorse and promote the alleged new and beneficial ideas. We believe the women will reverse their present judgment upon many of these pending measures.

The following table gives first the measures made prominent by feminist support, and then the other measures:

H. R. 21—Fess—Appropriation for Home Economics instruction equal to that now given agricultural education. Amends Smith-Hughes Act.—(\$3,000,000 by 1931).....	\$ 750,000
S. 1039—Sheppard-Towner Bill "for the public protection of maternity and infancy".....	1,480,000
H. R. 7—Towner-Sterling (formerly Smith-Towner) Bill for a U. S. Department of Education	100,500,000
S. 416—Capper-Fess physical education bill—(\$27,686,476 and upward with all States co-operating.)	10,000,000
S. 450—Smoot Bill appropriation for research and experimentation in home economics.....	360,000
Appropriation for services of home demonstration agents for farm women and homemakers...	2,000,000
Total urged by women's organizations	\$115,090,000
S. 681—Kenyon National Employment Bureau ..	4,000,000
S. 666—Borah to encourage development of agriculture and establishment of farms and suburban homes, by veterans of world war through Federal and State co-operation. Appropriates for underwriting of bond issues. (See also S. 2194 Borah, H. R. 7490 and 6048 Bankhead and H. R. 2913 Smith.)—(For 6 years.)	50,000,000
Grand Total	\$169,090,000

This total, which is only a beginning, will be added to the existing Federal subsidies to State and local governments which have been growing up since 1888, and which now total more than \$113,000,000 inclusive of national appropriations made to the public land States in lieu of reparation for lands (otherwise taxable) held out of use in connection with conservation policies. Existing "aids" are as follows:

Object of Subsidy	Amount of Total Appropriation by Congress 1920-21
Support of Disabled Soldiers and Sailors (Act of 1888)	\$ 1,000,000.00
Vocational Education (Smith-Hughes Act of 1917)	3,362,177.37
Roads (Acts of 1916 and 1919)	97,000,000.00
National Guard	(1) 1,675,918.61
Veneral Diseases	
Aid to State in protection of military and naval forces	400 000.00
Payments to States for prevention of	1,000,000.00
Payments to universities for research	100,000.00
Payments to universities for research in educational measures against	300,000.00
Industrial Rehabilitation	777,951.47
Agricultural Experiment Stations (Acts of 1887 and 1906)	1,440,000.00
Agricultural and Mechanical Arts College (Acts of 1890 and 1907)	2,500,000.00
Agricultural Extension work (Smith-Lever Act of 1914)	(2) 3,580,000.00
	<u>\$113,136,407.45</u>

¹Disbursement figure for year ended June 30, 1920. The appropriation figure for that year reported by Treasury Department as \$13,194,791.

²Figure given in table prepared by courtesy of Illinois Legislative Reference Bureau. A letter from the Division of Accounts and Disbursements of the Department of Agriculture gives the total disbursements to the States for the last fiscal year as \$5,080,000.

Arizona & New Mexico from Nat'l Forest Funds. \$ (3) 63,898.43
 Arizona & New Mexico School Funds (3) 24,950.28
 To a few States (4) under the oil-leasing Act.... 1,569,007.97

\$114,893,904.13

³These items, like the following item, are in the nature of reparations for federally held lands.

⁴According to the Honorable F. M. Goodwin, Assistant Secretary of the Interior, only California, Wyoming and Montana are entitled to substantial amounts under this Act. Louisiana, New Mexico, Idaho and North Dakota being entitled each to less than \$200.

FOR AND AGAINST SHEPPARD-TOWNER BILL

Of the new Federal aid proposals, the Sheppard-Towner bill (which has passed the Senate, is being pushed the hardest and is in the greatest danger of becoming a law. Therefore this properly may be discussed in some detail, especially when we consider the experience of Australia, where in a four-year period practically every mother received a cash maternity benefit, and realize that the present appropriation is only a modest beginning.

Favoring the bill have been: The Children's Bureau at Washington, many organizations of women, the various radical groups¹ and a few public health officials and many social workers.

¹The Massachusetts Civic Alliance states that one of the chief workers for the Maternity bill has made this admission: "All the wreckers of capital and the Constitution and our Institutions are solid for the Sheppard-Towner Bill." Floyd Dell in his "Feminism for Men" writes: "A man is not free until he can tell his boss and his job to go bark at one another; and he cannot do this without being a hero and a scoundrel at the same time so long as a woman and her helpless offspring depend upon him for support."

Opposing the bill as providing for unnecessary and undesirable activities of government have been the leading physicians of the country and the leading State medical societies (including the Illinois State Medical Society), the Christian Scientists, the League for Medical Freedom, Hon. Alice Robertson, the only

woman member of the 67th Congress, the women of the anti-feminist organizations, the Massachusetts Civic Alliance and, strenuously before the Senate Committee hearing, Surgeon General Hugh S. Cummings and the United States Public Health Service. Opposed to its Federal aid feature are the National Conference of State Manufacturers' Associations, and the Civic Federation. The National Tax Association and Chicago Association of Commerce decry further federal aid.

The principal arguments for and against the bill are arranged in parallel columns below:

FOR

About 200,000 babies died before reaching the age of 1 year in the U. S. in 1919.

About 20,000 mothers died from child birth in the U. S. in 1919.

"The United States has the highest maternal mortality rate of any of the 17 countries for which data are available. . . . This rate is increasing, the 1919 rate being 21 per cent. higher than that of 1915."—Children's bureau representative Senate Committee hearing, April 25, 1921.

It is safer to be a mother in 14 important foreign countries than in the United States.

Proper care before, during, and after confinement would save about two-thirds of the mothers who die in child birth, and one-half of the babies who die before a year old.

"Maternity benefit systems are not an experiment. . . . No such system once undertaken ever has been abandoned. Instead, the tendency . . . has always been toward including larger and larger groups of the population, toward increasing the compulsory as contrasted with the voluntary principle of insurance . . ." Julia C. Lathrop, (then) Chief of Children's Bureau, letter of May 22, 1919, transmitting Henry J. Harris' report on "Maternity Benefit Systems in Certain Foreign Countries." Bureau Publication No. 57, p. 9.

The Bill distinctly provides that no official or agent of the State or national government shall enter any home or take charge of any child over parental objection.

It is not charity. It is a public utility.

AGAINST

These statistics are not normal nor reliable, mortality in that year being affected by the "flu" epidemic.

"The very high rate in 1918 was undoubtedly due to the influenza epidemic. Had it not been for the same factor in 1919 . . . it is estimated . . . that the 1919 rate would be no higher than the 1915 or 1916 rate."—U. S. Census Mortality Statistics 1919, p. 48.

"There are no reliable statistics by which it can be proved that the United States stands seventeenth in maternal death rates."—Journal Am. Medical Association, May 25, 1921, p. 1504.

U. S. Census statistics for 1919 show the maternal mortality rate to be 7.4 per 1,000 births (992 out of every 1,000 live) as against a mortality rate for men

over 20 years of 14.8 per 1,000. In other words the average mother has better than 99 chances in a hundred of living in the United States and it is safer to become a mother than to be a man.

All such arguments, based on misstatement, are part of a campaign of "frightfulness" to discourage motherhood, conducted by the birth control propagandists who are alleged to be a masked force behind the Sheppard-Towner bill.

There is nothing now in the bill to accomplish any such results. The small amount proposed would not begin to supply the doctors, nurses, medicines and other thing alleged to be essential as free service for all mothers and infants.

As to instruction in hygiene of maternity, that is now being widely disseminated locally by private and public agencies. The Public Health Service already provides the very information proposed in this bill. (Senate Debates, Cong. Record, Dec. 18, 1920, p. 514-16.)

This proves that the bill is only an entering wedge, not only as to scope and expense, but also as to secretly socialistic character and the plan to extend under future compulsory provisions a highly federalized bureaucratic authority into every home in the United States. The government would take the place of the parent.

"Not only would the woman be encouraged to immorality, but the man would be relieved of all feeling of responsibility. It is a question of whether children shall be taken care of in the family or in the herd?"—Woman Patroit, June 1, 1921, p. 5 and 6.

"Mme. Alexandra Kollantai (head of the Russian Maternity System under the old government; said by U. S. Bureau of Information, Oct., 1918, to have been a German spy 'authorized to draw money from German banks in Sweden for the purpose of peace propaganda in Russia'; Commissar of Public Welfare under the Bolshevik government), whose book on Motherhood is highly recommended by the Children's Bureau, on p. 175 of Maternity Benefit Systems in certain Foreign Countries, says (in the latest number of Soviet Russia under the heading 'The Fight Against Prostitution'): 'The old form of the family is passing away . . . There can and must be no such thing in the Communist Society.'—The Chief of the Children's Bureau is to have charge of American motherhood under the Sheppard-Towner Bill." Massachusetts Civic Alliance, Sept. 10, 1921.

This proviso was not in the original bill and is contrary to the views of its promoters. It was inserted in a desperate effort to save the bill and procure an "entering wedge."

That is its vice. It is not charity for the needy alone, but for all—a socializing pauperization of American citizenship, a blow at the spirit of independence and individualism which has been the foundation of our national character.

Every decent citizen honors motherhood and has only sympathy for its trials and sufferings, while enlightened self-interest (apart from any higher

motive) would recognize the importance of doing everything possible for the welfare of the coming generations. It is one thing, however, to want to further the real welfare of the mothers of the Nation and of the next generation, and quite another to be told that it must be done in just the one way mapped out by some particular set of propagandists. The foregoing "line-up" of friends and foes and of arguments for and against, the Sheppard-Towner bill not only raises grave doubts as to the need of any radical extension of the public effort in this direction, but suggests a serious question as to the desirability of the measure itself and the ultimate objects which may be masked behind it. Certainly its immediate necessity is non-existent. Mothers and babies are not dying for lack of such legislation. They are being cared for by existing facilities, public and private, as individual cases require, and existing charitable and public agencies are constantly extending their legitimate work without need of national "aid." In view of this, the fiscal aspects of the measure certainly should determine its fate.

WOULD COMPEL NEEDLESS LOCAL EXPENSE

Section 10 of the bill reads: "That the facilities provided by any State agencies co-operating under the provisions of this Act shall be available for all residents of the State." In other words, the State (with its subdivisions) must put itself in position to supply "through public health nurses, consultation centers, and other suitable methods" free instruction in the hygiene of maternity and infancy to every woman whether married or single, poor or well to do. It is thus in line with the Glackin bills which the Civic Federation has opposed vigorously in the last two sessions of the Illinois General Assembly because they were designed to set up at the taxpayers' expense a tremendous machinery of public health doctors and nurses to supply free medical aid, nursing service and instruction to all women regardless of financial status. Private and public agencies now render such service in most of the needy and deserving cases. Such unnecessary and paternalistic measures as the Glackin bill will be practically impossible of defeat locally if the Sheppard-Towner bill passes, because of the hope of Federal "aid" which will be held out to the legislature of the States.

The Towner-Sterling United States Department of Education Bill, which proposes to establish a new Cabinet position with \$500,000 for departmental expenses and \$100,000,000 for distribution to State and local school authorities, also has considerable backing, and deserves some comment. Education never has been a function of our national Government. The great progress that has been made thus far in our history (that is, under the greatest difficulties likely to be encountered) has been under State and chiefly under local supervision and financing. This bill definitely gives the proposed new departmental secretary no supervision over State and local school matters. It would merely distribute Federal appropriations to

State and local schools. Fiscally it is unsound. Administratively it seems worse than useless.

GREAT BRITAIN'S SAD EXPERIENCE

We are convinced that the principle of national "aid" or "grants" to the States and their subdivisions, in other words, of Federal appropriations out of the United States Treasury to be expended under the direction of State and local governments, is unsound, and that it will lead to chaos in national and local finances, and to irresponsibility and extravagance in local and national governments. We have arrived at these conclusions as the result of the investigation conducted during the Summer months by the Secretary of the Federation, which indicates that the theoretical objections which have naturally suggested themselves to men of practical minds and acquainted with tendencies in government, are more than supported by the unfortunate experience in the United Kingdom of Great Britain. The British national "grants in aid" have grown from 244,402 pounds sterling in 1842-3 to more than 65,000,000 pounds sterling for the fiscal year 1920-21, and—being made toward all sorts of socializing public activities such as public health insurance, aid to the unemployed under the "better to be a pauper than work" rule, etc.—are on the increase. Such friendly critics as Sidney Webb and J. Watson Grice agree that fiscally speaking "the whole field is a chaos which practically no one understands." William E. Gladstone as far back as 1885 urged a discontinuance of the system as a burden upon labor and industry and also because the "subventions had allowed of the local authorities being pressed or forced to much augmentation of expenses." In other words Gladstone found the British grants in aid precisely the same bribe to extravagance and needless local expenditure which we find the existing and proposed "Federal aids" in our own country today.

The investigations made by Mr. Sutherland are printed in a supplemental pamphlet entitled "Federal Aid," which goes to press with this Bulletin. Copies will be forwarded to each member of the Federation and to such others as care to write for it. We heartily concur in his conclusions that until a sound national policy as to the proper scope of Federal appropriations is established, Congress has no moral right to create a single new subsidy to the State and their local governments, nor to increase existing appropriations, except, of course, in the case of appropriations in the nature of reparation for lands (otherwise taxable) held out of use for conservation purposes.

This means that no Federal aid in any amount should be granted in connection with the Sheppard-Towner, the Towner-Sterling, or any other similar pending bill or resolution, by this Congress.

We support the principle as to Federal appropriations wisely suggested by former Governor Frank O. Lowden in addressing the Convocation of the University of Chicago in June of this year that:

"The Federal Government should appropriate only for those interests which are purely of national con-

cern and clearly within the purpose for which the Federal Union was established."

NO MORE FEDERAL "AID"

If this policy is adopted by the Nation there will be no more talk of "Federal aid" measures, and we may hope for a degree of economy and fiscal responsibility in the respective fields of National, State and local government, in direct proportion to the degree of active popular interest. If this policy is not adopted, and we proceed, as proposed, to mix up National, State and local finances, then, no matter how alert our private citizenship may strive to be, it will be increasingly difficult and ultimately impossible to fix responsibility for public waste and extravagance.

We earnestly recommend a study of this phase of our public finance to every legislator sincerely interested in the welfare of his Nation, his State and his community; to every organization, and to every private citizen who realizes the proportion, direct or indirect, of the burden of government which he is bearing today.

Let us extend this menacing policy of Federal aid no further.

Let us find, if possible, a wiser plan of financing projects in which "Federal aid" already plays a part, in order that these national appropriations may not grow beyond all bounds.

Let us be sure that whenever it is financially necessary to make a Federal appropriation that the United States shall direct and supervise its expenditure in order that there may be some guaranty of responsibility and efficiency.

Published by order of the Executive Committee.

JOSEPH E. OTIS, President.

DOUGLAS SUTHERLAND, Secretary.

THE MEDICAL PROBLEM OF WORKMEN'S COMPENSATION IN NEW YORK STATE

A brief statement of what is being done in New York by Stanley L. Otis, director of the Bureau of Workmen's compensation, State Department of Labor.

Medical treatment of employees injured in industry demands the best thought of the best minds familiar with or connected with the development and growth of the principle of workmen's compensation in this country. It is gradually becoming recognized that not only should the injured employee be compensated for the wages lost, but every effort made to restore him as far as possible to his condition before the accident. The sixty days' medical treatment provided in the law may be sufficient in many cases but there are those which require a longer period and the monetary aspect as well as the humanitarian aspect urge intelligent handling and a high degree of application of the laws of medicine and surgery including the latest developments in traumatic surgery and methods of caring for industrial neuroses.

Industrial Commissioner Sayer clearly recognizes the need of an intensive study of the subject and soon after his inauguration as head of the New York State Department of Labor he appointed a committee whose

duty it is to make a thorough survey of the existing method of treating injured employees and recommend such a revision as would assure that the injured workmen would receive adequate treatment, the physician a just recompense for his services, the hospital proper compensation and the man restored to industry in the shortest space of time, consistent with the restoration as near as possible of all his functions.

This committee is known as the "Committee on Medical Questions" and includes in its membership representatives of stock insurance companies, mutual associations, the State Fund, self-insurers, workmen-employers, company doctors, industrial physicians and general practitioners with the Director of the Bureau of Workmen's Compensation of the New York State Department of Labor as its secretary.

The members of the committee are:

Chairman Mr. J. Frank Scannel, General Counsel, Federal Mutual Insurance Co.; Mr. Wm. H. Foster, General Counsel, Aetna Ins. Co.; Mr. Charles Deckelman, General Counsel, Travelers Ins. Co.; Mr. L. W. Hatch, Manager, State Insurance Fund.; Mr. O. G. Browne, Secretary, Self-Insurers Assoc.; Mr. John W. Cronin, General Counsel, Liberty Mutual Ins.; Mr. Thos. J. Curtis, Vice-Pres. N. Y. State Federation of Labor; Mr. Mark A. Daly, General Secretary, Associated Industries; Dr. P. H. Hourigan, President, N. Y. State Society of Industrial Medicine; Dr. James F. Rooney, President, Medical Society of State of N. Y.; Dr. Eden V. Delphey, Medical Society of State of New York; Dr. Frank D. Jennings, Vice-Pres. Kings County Medical Society; Dr. A. R. Tilton, Chief Medical Advisor, Travelers Ins. Co.; Medical Advisor to committee, Dr. R. Lewy, Chief Medical Examiner for the Department of Labor.

Secretary, Mr. Stanley L. Otis, Director, Bureau of Workmen's Compensation.

It was suggested that the committee consider:

- (a) Medical care and treatment of injured employees including physical therapy,
- (b) Kind of medical evidence and manner of presenting it,
- (c) Method of selection of physicians and payment of medical expense,
- (d) Hospital services and costs.

The committee decided to inquire into the following subjects:

I. Medical Care of Injured.

(a) Choice of physician.

1. Panel System.
2. Free selection.
3. Group surgery.

(b) Control of treatment.

1. Immediate.
2. Follow up.

(c) Quality of treatment.

1. Baking and massage.
2. Mechanical devices.

3. Service laboratory for physical therapy.

II. Medical Evidence as to Disability.

(a) Designation of specialists.

1. Eye expert.
2. Neurological expert.
3. Orthopedic surgeon.
4. X-ray physician.

(b) Method of measuring loss of eye vision and other questions relating to medical testimony.

III. Physicians fees and Hospital costs.

A number of meetings of the committee have been held and public hearings in New York City, Buffalo, Rochester, Syracuse and Albany at which time representatives of hospitals, medical societies, industrial and other physicians, workmen, employers, and insurance carriers have appeared and presented their views regarding the medical benefits of the workmen's compensation law.

Physicians, hospitals, injured employees and all others interested are invited to present their view in writing addressed to the secretary, regarding any or all of the subjects, for the information of the committee.

Much valuable information has already been obtained and if the committee disbanded tomorrow its effect on the medical situation in New York state would be far reaching. Medical treatment is being administered with more care, medical bills are being more promptly paid and a stimulus has been given in every direction. The work of the committee however, has hardly begun. Other hearings will be held, clinics and hospitals visited and a close study made of the material acquired and conclusions reached which will be embodied in a final report to Commissioner Sayer.

The results may take the form of a suggested amendment to the workmen's compensation law or recommendation for the adoption of rules and regulation which will have the force and effect of law.

PRESIDENT KINLEY RAPS THE FIFTY-FIFTY PLAN—FLAYS FEDERAL STATE CONTROL

At the installation of President Kinley as President of the University of Illinois on December 2, 1921, he said:

"The onward sweep of the growth of federal control, which is one of the most astonishing facts in our history, is the most important question of internal administration before the American people today, Dr. David Ginley told an audience of educators in an address following his installation as president of the University of Illinois. The listeners were presidents and deans of most of the important American colleges and universities, who are here attending a conference on 'The relation of federal government to education.'

UNDERMINES STATE POWER

"This onward sweep of federal power is breaking down our state authority," said President Kinley: "Are we to allow it to gain control over all the details of local affairs? Shall we permit the invasion to extend to the new field of education or new methods which, to many, seem sinister in their future influence?"

"Education is one of the matters not delegated to the federal government by the constitution. It is a state function," he continued.

NEW LEGISLATION VICIOUS

"We are on the threshold of a new educational policy, and many citizens are raising questions about the wisdom of educational proposals now before congress. The class of educational bills which now attract public attention involves a different principle of federal aid than the principle involved by the land grant act of 1862. Under this law the federal government allows the states or institutions to use their own discretion as to ways and means of carrying out the purposes of the law. The more recent Smith-Lever and Smith-Hughes acts, however, involve a principle which is vicious because it tends to undermine local authority in educational matters.

APPROVES FEDERAL GRANTS

"Some of the new proposals now under consideration involve this bad principle in a much more far-reaching way. That vicious principle is the provision that the states will match the federal appropriations with equal amounts. This plan contains within itself the germ of a power that, when developed, will determine the character and extent of our education. This is the same vicious fifty-fifty proposition held out at a sop to induce the states to do the particular things that the federal department wants.

"If the principle of further federal aid is adopted, it should be on the plan of the first federal grants to the land grant colleges. That is to say appropriations should be made direct to the states, to be distributed by their legislatures, and to them should be left the mode of distribution."

CONSIDERING THE MAGNITUDE OF THE AMERICAN MEDICAL ASSOCIATION WE HAVE FAILED TO MARCH TO THE MUSIC OF THE TIMES

Dr. D. E. Sullivan of Concord, New Hampshire, at the conference of the constituent State Medical Associations held in Chicago, November, 1921, and published in the *Journal of the A. M. A.*, November 26, 1921, said:

"In the immediate future there are grave questions that the American Medical Association must meet, for on it rests the great responsibility of compelling the public mind to think straight in matters pertaining to public health and the practice of medicine. In recent months, legislation has been enacted in all parts of the country in direct defiance of the expressed opinion of medical societies, yielding to the voice of people expressed through politicians, and the standing of the medical profession is nothing. All sorts of cults and 'isms' have been recognized, and the voice of scientific medicine stifled. If I read the times aright—and I am not a pessimist nor an alarmist—there are ominous and evil days for the medical profession unless we take hold of this job in man-like fashion. I believe we

have got to adopt definite and concrete resolutions and then act on them. We should have a strong central committee selected without regard to favoritism, politics or location, that will represent the best thought and minds of the profession in its everyday affairs. That will necessarily imply a good deal of expense. Can we not afford it? We cannot afford to do otherwise. Considering the magnitude of our Association, we have failed to march to the music of the times. We have allowed lay organizations to insinuate themselves into medical practices and really to undermine the very stability of public health organization. If my section of the country is any criterion of the rest of the United States, the general practitioner is much disgusted with the way these things have been handled by our profession in the past."

Public Health

SMALLPOX INCIDENCE INCREASES

The usual seasonal increase in smallpox has made its appearance in Illinois. Of more than usual interest, however, is the fact that some of the cases are reported to be of the virulent type. Drury township in Rock Island county reported 27 cases to the State Department of Health within a week and 12 of these were reported on a single day. From Tonica, in La Salle county, it is reported that 15 cases of smallpox developed as a result of contact with a single patient who attended a local dance. The same patient is reported to have spread the disease through Leonore township. From Dixon, in Lee county, 10 cases, three of which are said to be malignant, were reported.

In this connection the State Department of Health has issued a general vaccination warning and has advised local health authorities of their duty relative to preventing and controlling outbreaks.

VACCINATION OF NURSES AGAINST TYPHOID FEVER

The State Department of Health wishes to call to the attention of physicians the necessity for vaccinating nurses and attendants of typhoid fever patients against this disease and the examination of dejecta of all persons recovered from typhoid fever to determine whether or not they still harbor germs sufficient to make the persons dangerous as carriers.

Book Reviews

CLINICAL DIAGNOSIS. By Chas. Phillips Emerson, M. D. 156 illustrations; 5th edition entirely revised and rewritten. Philadelphia and London, J. P. Lippincott Company. Price, \$7.50.

It is ten years since the last edition of this work appeared. In this interval has been noted the greatest progress in the history of Medicine and Surgery, and

because of medical progress during this time, it became necessary to rewrite the entire work. In other words, the author has brought out an entirely new work.

In this edition several new sections have been added, notably those on Serology, Bacteriology, Chemistry of the Blood and Spinal Fluid.

The work is concise, no attempt is made to cover the literature of the subjects described in this work. The work should prove valuable to all practitioners of medicine.

EPIDEMIOLOGY AND PUBLIC HEALTH. In three volumes.

By Victor C. Vaughan. Vol. 1, Respiratory Infections. St. Louis, C. V. Mosby Co., 1922. Price, \$9.00.

This work is intended as a text and reference book, for physicians, medical students and health workers. It deals with the so-called communicable diseases that in a large measure are capable of control by public health measures.

THE PRACTICAL MEDICAL SERIES. VOLUME IV. PEDIATRICS. EDITED BY ISAAC A. ABT WITH THE COLLABORATION OF JOHANNA HEUMANN. ORTHOPEDIC SURGERY. EDITED BY EDWARD W. RYERSON WITH THE COLLABORATION OF ROBERT O. RITTER. SERIES 1921. CHICAGO. YEAR BOOK PUBLISHERS. PRICE \$1.75.

This volume contains 306 pages. The space given to each subject being about equal. The part devoted to pediatrics shows progress in the subject in recent years. It treats of the diseases of the newborn both inflammatory and those due to malnutrition and heredity; the part of the work devoted to Orthopedic surgery covers injuries to the spine, upper, lower extremity, foot, none surgery, tuberculosis of bone, miscellaneous conditions and new apparatus.

VICE AND HEALTH. By John Clarence Funk. Philadelphia and London. J. B. Lippincott Company. 1921. Price, \$1.50.

The evils connected with the underworld are receiving more and more attention each year both by Public Health and lay people. This book is lucid and portrays the facts in a dispassionate manner. The author emphasizes the fact that the happiness of the present and future generations in a large measure depends upon the amount of properly educated interests which we stimulate in our locality against vice and its disease sequences.

THE SURGICAL CLINICS OF NORTH AMERICA. Volume I, Number V (the Mayo Number, October, 1921). Philadelphia and London. W. B. Saunders Company. 1921. Published bi-monthly. Price per year \$12.00.

This volume conforms with the high standard of previous issues. It gives the clinics of Dr. Balfour, Rankin, Charles and William Mayo, Hunt, Judd, Bum-pus, Jr., Wilson, Bowing, Adson, Walter and Harold Lillie, New; Broders, Hedblom, Lockwood, Masson and Horgan, Mann, Henderson, Meyerding, and Cistrunk.

Society Proceedings

ADAMS COUNTY

The annual meeting of the Adams County Medical Society was held on Monday, December 12, 1921, at the Chamber of Commerce, Quincy. Call to order at 8:30 p. m. by President W. E. Mercer.

Officers elected for 1922 as follows: President, Dr. John K. Reticker, Quincy; first vice-president, Dr. E. G. Boyd, Quincy; second vice-president, Dr. Ralph McReynolds, Quincy; secretary, Dr. Elizabeth B. Ball, Quincy; treasurer, Dr. J. H. Blomer, Quincy; censors, Dr. W. D. Stevenson, Quincy, Dr. Harold Swanberg, Quincy, and Dr. C. E. Ericson, Quincy.

Defense committee, Dr. John A. Koch, Quincy.

Trustees, Dr. E. Zimmerman, Quincy, Dr. W. H. Baker, Quincy, and Dr. A. H. Ditter, Quincy.

SCIENTIFIC PROGRAM

Paper—"Relation of Laboratory to Clinical Medicine." Dr. Frank Cohen of the Quincy Pathological Laboratory.

Dr. W. W. Williams, interesting gall bladder case with specimen which was removed twenty-four hours previously.

Reports from meeting of American College of Surgeons, Drs. Montgomery, Koch and Williams.

Short talk on nitrous oxide anesthesia, Dr. C. A. Wells.

Reports from meeting of Radiological Society, held in Chicago during the present month, Drs. Harold Swanberg and H. P. Beirne.

Dr. John W. H. Pollard of Quincy, the new District Health Officer, was admitted to membership.

Next month the annual banquet will be held either at one of the hotels or at the Country Club. Doctor C. E. Humiston, president of the Illinois State Medical Society, will be the speaker and the guest of honor.

ELIZABETH B. BALL,

Secretary.

BUREAU COUNTY

At the Annual Meeting of the Bureau County Medical Society held Nov. 3rd, the following officers were elected and committees were appointed: President, Dr. R. Herrick, Wyanet; vice-president, Dr. L. H. Wiman, LaMoille; secretary-treasurer, Dr. F. Emerson Inks, Princeton. Committees: Publication, Dr. Henry, Princeton, Dr. Barrett, Princeton, and Dr. Dunn, Ladd; program, Dr. Nix, Princeton, Dr. Schroeder, Princeton, and Dr. Blackburn, Princeton; legislative, Dr. Lewis, Depue, Dr. Scott, Princeton, and Dr. O'Malley, Ohio; necrology, Dr. Marshall, Sheffield, Dr. Hess, Tiskilwa, and Dr. Steele, Princeton.

The following scientific program was enjoyed:

"Some legislative and other problems to be considered by the physicians of Illinois." E. E. Perisho, M. D., Streator, Ill., Councilor Second District.

"Radium Therapy." C. W. Hanford, Chicago, Ill.

"X-Ray Therapy." Cassie B. Rose, Chicago, Ill., Instructor Radiology, Rush Medical College.

All subjects were timely as was shown by the discussion following each. As shown by Dr. Perisho, now is the time for all physicians of Illinois and other

states to get together to protect their interests before the several legislatures.

F. EMERSON INKS, M. D.,
Secretary-Treasurer.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Joint Meeting Chicago Medical Society and the Radiological Society, Dec. 7, 1921

1. The Treatment of Epithelioma of the Lip by Electro-Coagulation and Radiation, George F. Pfahler, Philadelphia.

Discussion: Wm. Allen Pusey, Emil G. Beck.

2. Some Errors in the Roentgen Diagnosis of Duodenal Ulcer. Russell D. Carmen, Rochester.

Discussion: Frank Smithies, Bertram W. Sippy, Walter W. Hamberger.

Joint Meeting Chicago Medical Society and Chicago Tuberculosis Society, Dec. 14, 1921

"Some Present Day Problems in Tuberculosis," James Alexander Miller, of New York City, President, National Tuberculosis Association.

Discussion: J. W. Pettit, John Dill Robertson, C. L. Wheaton, Ethan A. Gray.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY.

The regular monthly meeting of the Chicago Laryngological and Otolological Society was held on Monday evening, April 4, 1921, at the Palmer House at 8 o'clock.

The President, Dr. Alfred Lewy, in the Chair.

PRESENTATION OF CASES:

Dr. Charles Robertson presented a case of Vincent's angina. The ulceration was sharply outlined, the edges undermined and irregular; it occupied the position of the right tonsil, the posterior pillar extending into the soft palate nearly to the base of the uvula, the uvula being swollen and elongated. The upper pole of the tonsil was almost destroyed, the posterior pillar was lost in the middle portion by the ulceration and the process was extending along the posterior wall of the pharynx. The only subjective sign was pain on deglutition. There was no rise in temperature, no involvement of the Eustachian tube with attendant ear pain and no involvement of the cervical glands. A smear showed almost pure culture of fusiform bacilli and spirillae. The ulcer was very similar in appearance to a letuic ulceration.

Dr. Robertson said the best method of treatment for Vincent's angina was the use of powdered salvarsan in solution swabbed on the ulcer, or salvarsan administered intravenously. He expected in this case to use a 20 per cent. solution of methylene blue, painting it onto the ulceration and getting it into the interstices as far as they went.

Dr. Robert Sonnenschein read a paper on "Resonators as Possible Aid in Tuning Fork Tests. A Preliminary Report."

(Abstract.)

This paper covers the examination of fifty un-

selected consecutive cases and is only preliminary in character. It is the intention of the writer to use the resonator for a considerable time in order to see what findings may be had in a large series and then report more definite conclusions, if possible.

The tests were made in the following manner: The small a' fork (435 v.d.) was excited in a uniform manner by holding it at right angles to the body and allowing a small rubber pleximeter to fall of its own height and weight from a perpendicular position directly upon one of the prongs. When the fork was no longer heard by air conduction the time was noted, the tip at the end of the tubing connected with the resonator attuned to the tone of a' was then inserted into the ear, the fork held near the resonator and the fact noted, either that the sound was not again appreciated by the patient, or, if heard, for how long a period.

The small a' fork (435 v.d.) was used since its pitch lies in the speech area designated by Bezold, and if not heard by air usually means that all hearing for speech is lost.

So far as the writer is aware, resonators, while used very extensively in purely physical research, have not been employed in clinical work.

Analysis of the Findings: With reference to their response to the resonator, the cases studied fall into two main groups:

- I. Thirty-five cases in which one or both ears show increased hearing to the a' fork on using the resonator.
- II. Fifteen cases in which the resonator failed to increase the hearing at all.

In all of the normal cases the hearing was increased considerably by the use of the resonator; namely, 23 seconds or a percentage of increase of 52. It seems strange, however, that some cases of nerve degeneration show improvement with the resonator and others do not; this fact is also noticed with reference to acute and chronic otitis media, as well as chronic tubal catarrh. Is it possible the degree of involvement determines the phenomenon or is it some other factor: only the study of many cases may throw light upon this question, for we find among the nerve cases some with very marked degeneration, others with only moderate involvement, and yet the reaction to the resonator is about the same. The cases of otosclerosis showed no improvement with the resonator.

CONCLUSIONS:

1. The hearing by air conduction of the a' fork (435 v.d.) was considerably increased of a probably attuned resonator, at least in all the normal ears examined.
2. Cases of auditory nerve degeneration, or in certain middle ear affections showed in some instances an increase in hearing and in some no change, with the resonator.
3. It is easy with the resonator to test the actual duration of vibration of various forks.
4. In determining the presence of complete deaf-

ness for certain tones, resonators will be of great aid. When a fork, especially one whose pitch lies in the "speech area," is not heard at all when reinforced by the resonator, the hearing for that tone can be said to be absent.

5. It will make it possible to determine the pitch of the tinnitus aurium from the patient's own observation, when the resonator is attuned to various sounds in the surrounding air.

6. While tests with the resonator indicate that its use may have some significance, to really decide its actual clinical value, if any, in otology such as an aid to diagnosis, etc., would require extensive further investigation.

DISCUSSION

Dr. J. Gordon Wilson said it was certainly astonishing to hear that while one can with the resonator magnify a tone, yet there are some diseases of the ear in which the hearing of that note from the resonator is not bettered.

As to the relation of tinnitus to the ear lesion, Dr. Wilson had seen cases where it had been possible to localize the pitch of the tinnitus and in some of these cases the pitch of the tinnitus had a very important relation to the nerve involvement. How far further work will hear this out must be left to the future to determine.

Resonators in the study of the physics of hearing have been much used in the past, and the great work of Helmholtz was to a large extent based upon his use of resonators. In drawing deductions one, of course, must recognize that while resonators increase the intensity of the pitch to which they are attuned they also magnify the amplitude of the corresponding overtones and the corresponding sub-tone.

Dr. Sonnenschein had tonight drawn attention to a field which otologists have neglected. Dr. Wilson was confident that otologists would pay more attention to the cochlea and audition in the coming years. The cochlea offers a fertile field for investigation, much as the labyrinth did a decade or more ago.

Dr. J. Holinger objected to the expression that a resonator increases any particular sound, in the sense that it increases the amplitudes of the vibrations. The resonator shuts out interfering sounds but can not increase amplitudes of vibration.

Dr. G. W. Boot said that we must consider the force as well as the frequency of the vibrations. The amount of sound depends on these two factors. The resonator shuts out all sounds except the pitch to which it is tuned: hence that particular pitch is heard better.

The reason why the sound to which the resonator responds is not heard better in otosclerosis is probably because the sound is not really more forcible but because other extraneous sounds are kept out by the resonator and these are the sounds that ordinarily would start the stapes to vibrating and permit the resonator's pitch to enter. If the resonator actually made the sound louder it should be better in otosclerosis, but if it only seems louder because other sounds are kept out, it is easily seen why it does not improve the hearing in otosclerosis.

Dr. Norval H. Pierce was surprised to learn that bone conduction was not increased by the resonator in cases of otosclerosis, and wondered whether the same experiments could not be made on bone conduction to see whether the resonator prolonged the bone conduction. It suggested a very interesting thought that by means of resonators we might be able to eliminate bone conduction in our experiments.

Dr. Alfred Lewy asked Dr. Sonnenschein to explain in just what manner the resonator apparently increases the sound. There appeared to be a difference in the meaning of certain terms rather than a difference in the actual facts in the case.

Dr. Sonnenschein (closing) said he was always glad to hear from Dr. Wilson who had had so much experience in physiology and physical research. It is a fact that every tone has overtones. The first is the octave of the tone used, the next is

five tones above that and the next over-tone is two octaves above the original tone. Often there are five over-tones or more, the principal ones being the first three mentioned. He stated that resonators increase or reinforce sounds that have the same pitch as the fundamental tone or multiples thereof. It must be taken into consideration that when the tuning fork is used the resonator increases the over-tone as well as the fundamental tone itself but the latter is most intensified. The fact that the cochlea is being subjected to very serious study at present is gratifying.

Replying to Dr. Holinger, the speaker said he realized that one could not create energy or matter and cannot destroy it, but one can transform it. The resonator picks out the tone which corresponds to its fundamental note and the repeated impulses coming at the same moment causes a reinforcement.

As Dr. Boot stated, there can be a change in the force and extent of the amplitude and thereby again changes in the intensity of the sound, making it louder.

Replying to Dr. Pierce, the two cases of otosclerosis were typical and yet the hearing was not increased at all by the resonator, which intensified the tone of the attuning fork.

Dr. Charles Robertson read a paper on a "A Review of the Medical Aspect of Aviation." (Published in September Journal, page 222.)

DISCUSSION

Dr. George W. Mosher stated that with the experience gained while in military service he could corroborate what Dr. Robertson said. Probably 90 per cent of commercial flying will be done under an elevation of 5,000 feet and oxygen lack is not a factor until one is beyond that elevation. The re-breathing test is important for if a man is to be a pursuit flyer at 20,000 feet he must be able to stand that, but a little cold in the head, loss of sleep, or a little indigestion will make a difference of 2,000 to 4,000 feet in a test record and is of no great importance for commercial flying. Without a perfectly functioning labyrinth one cannot be sure what a man will do, but a properly functioning labyrinth is of no great value to a man unless all other impulses come in right; muscle sense, vision, and tactile sense when air currents strike on the cheek and in the face.

Dr. Mosher thought the important thing to bear in mind was that the otological test for fliers had been played up as the most important in governmental work while the fact is that the result of sudden change in atmospheric pressure as experienced in actual flight is more important than anything that a man will show in a rotation chair or in re-breathing tests; in his judgment too great importance has been attached to repeated tests of the labyrinth, and to re-breathing tests, and altogether too little value placed on the results of rapid changes of atmospheric pressure.

Dr. J. Gordon Wilson said that looking back to the early period of the war it was evident that otologists have journeyed far from the position they held in 1917. It has been recognized that nystagmus and past-pointing have not the importance that one thought they had, and no one so far as he knew has demonstrated that nystagmus and past-pointing are related to flying ability.

Dr. Wilson believed it would be more correct to say that the authorities at Washington believed a vacuum chamber gave accurate scientific data, but that it had been found by experience that such chambers were not suitable for routine examinations.

Everyone who had anything to do with aviators was aware of the importance of oxygen. Dr. Robertson had spoken of men coming down exhausted and sleeping for hours. It had been found that if these men were supplied with oxygen they quickly revived and showed less after-fatigue. Though recognizing fully the importance of alterations in atmospheric pressure with the resulting alteration in oxygen tension, Dr. Wilson was not inclined to give as much importance to this as Dr. Robertson does. Dr. Wilson believes that of more essential importance in determining the ability of a man to fly are (1) his ability rapidly to coordinate the afferent impulses coming in from the ear, the eye and the kinesthetic senses which are the impulses so essential to balancing and

(2) the control, largely automatic, which the aviator develops over this coordinating mechanism. It is this control, this automatic adjustment of the afferent impulses and their efferent responses, influenced undoubtedly from higher centres, which is conspicuously present in our best fliers and faulty when the flyer goes stale.

Dr. Frank F. Novak, Jr., said that the method of looking at the eye from the side and timing it with a stop watch was unreliable and grossly inaccurate. A much better plan is the use of a reading microscope mounted on the side to observe the nystagmus movements, but even that is not as accurate as using a "singing flame." This is simply a gas pipe with a small jet. The gas flame is about the thickness of a match and about one-fourth or one-half inch high. Over this flame is passed a glass tube of a definite length. The flame vibrates and produces a tone like a high pitched tone of the organ. In a dark room, looking straight ahead, one sees just one streak of flame but if the eyes are moved from right to left it is no longer a single flame but a jagged series of lights. That is applied in measuring nystagmus time, depending upon the report of the individual whose nystagmus time is being measured. While the nystagmus lasts instead of seeing a single flame the individual sees a jagged series of flashes. When the nystagmus stops he sees only a single flame. This work is being done by Bentley and Griffith at the University of Illinois.

Dr. Norval H. Pierce said he had not had much experience during the war other than turning something like 2,000 aviators in testing their labyrinth function. He believed the whole thing is a matter of development and that we probably will arrive at entirely different conclusions in the future than those arrived at during the stress of war.

Dr. Pierce asked Dr. Novak how long a nystagmus which is considered normal is found by the use of the singing flame, and what was the difference between the character and duration of nystagmus as measured by the ordinary methods and that measured by the singing flame.

Dr. Novak (replying to Dr. Pierce) said the time was greatly lengthened; he could not tell the number of seconds exactly but the reading by means of the vibrating flame is considerably longer than with the eye. If four or five observers watch the same eye and click their watches there is a variation sometimes of three, four or six seconds, and sometimes the nystagmus ceases but looking at it closely one sees a fine fibrillary twitching. The jagged light is very pronounced at first, then gradually gets finer, then ceases for a second, and then stops with a very fine motion.

Dr. Pierce thought this test by the singing flame seemed to depend on subjective sensation of the individual and believed he would rather depend upon the old method in examining recruits for aviation than to trust to a man's reported sensation. In the opinion of Dr. Pierce there is an inhibitory mechanism which is disconnected from the will that enters into this phenomenon. He did not agree with Dr. Wilson that this is altogether a matter of control but considers it a matter of automatic inhibition. He believed control could be cultivated under the will. There are two factors, a subconscious inhibitory mechanism and also a mechanism which is directly subservient to the will.

Dr. Charles M. Robertson stated that in the Government book the statement is made that nystagmus will be lessened on repeated turning, but it does not give any figures at all. Dr. Robertson found the diminution in vertigo or in nystagmus after placing a man in a vacuum chamber for six minutes and taking him out was equal to 50 per cent. in most cases. There could not be any inhibition or control in that length of time. The usual stop watch method was used in taking the nystagmus time. The "singing flame" method was unknown three years ago and he would not adopt it now as there are more desirable tests which do not rely upon the patient's response, which would not be accurate.

Regarding the reduction in vertigo by the vacuum test, one test of six minutes' duration was not enough to train anybody in anything, but at the same time the vertigo was reduced. Some were stimulated with the stimulation in the labyrinth with a rise in the blood pressure, some with quickened pulse, some with lowered, but most with the quickened and the nystagmus the same, while on the other hand the blood pres-

sure was depressed and the muscle tone depressed with the nystagmus shortened. Muscle fatigue can be tested more accurately with the accommodation or "near point," which is a very good test.

Dr. Robertson thought it looked as though there was in some hyperemia, and therefore an increased activity of the labyrinth while there was an anemia in the labyrinth in the cases of reduction of the nystagmus due to a less stimulated labyrinth.

Dr. Robertson had no intention of criticizing the Government; he thought they did their best but believed they were barking up the wrong tree. He had had quite a lot of correspondence and conversation with the Department, which had all been friendly and not antagonistic.

Another point to be considered was the loss of carbon dioxid in the blood. He had taken the vacuum test at Mineola and thought it was not good. The vacuum chamber was large and the pump was not powerful enough to produce conditions similar to flight. He thought he was fair in stating his opinion as the matter is a scientific question. He was conversant with what the English thought of it, and Birken had said that the oxygen want was not of so much importance as it was thought to be. It seemed to Dr. Robertson that the blood pressure change is the dominant factor.

THE CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

The Annual Meeting of the Chicago Laryngological and Otological Society was held on Monday evening, May 2, 1921.

The President, Dr. Alfred Lewy, in the Chair.

Symposium: "The Future of Oto-Laryngology in Chicago."

Dr. Alfred Lewy said that with the idea in mind that this was a forward-looking Society, one of the members of the Council who was a good friend of his, and of the Society, suggested this program in lieu of the customary retrospective Presidential Address usually given at the annual meeting. Among our members are quite a number of men of wide reputation as investigators, teachers and clinicians, several of whom had consented to lead the discussion, each taking up briefly some particular phase of the subject. The first to speak would be Dr. J. Gordon Wilson, his subject being "The Training of Students Toward Greater Accuracy."

Dr. J. Gordon Wilson believed the future of laryngology in Chicago depended on the ideals of those practising the specialty, of the standard of proficiency they endeavored to maintain. This Society, composed of the leading specialists in oto-laryngology, ought to play an important part in determining this future. Various views would no doubt be presented, for the pathways of progress are many. There was, for example, a recommendation of the Council in regard to research in oto-laryngology. Such required ample time and necessitated some sacrifice. It required laboratory facilities and presumed the acquirement of preliminary knowledge and technique. Few have the opportunity or training to explore unknown fields, but one field necessary to the advancement of this specialty was open to all; namely, careful observation of cases and accurate records. Everyone acknowledged the importance of accurate observation and, in reports, the need of careful statements of facts in simple language, but such are too often wanting. Accurate observation of conditions was not easily acquired. Symptoms as

given by the patient were often inaccurately noted. Those who have frequently to look up case reports know the inadequacy of many of these. This was a profitable field in which each could assist. This Society should insist, so far as it can, that papers presented and afterwards published be devoid of errors in observation and statement.

Dr. Wilson pointed out the fact that they were sadly deficient in post-mortem reports in otology. Surely in this Society they ought to be able to show some work on the microscopic examination of ear cases carefully tested during life.

Dr. George E. Shambaugh stated that there are two phases of work in connection with graduate instruction in oto-laryngology which have usually been confused. One is, the work which a man should do preparatory to taking up the specialty. The other has to do with providing short review courses for those already established in the specialty. These are often called "brush-up" courses. These men do not care to spend a long period of time on such work, but wish to have in a short time an opportunity to add to their knowledge regarding some particular subject. The phase of work of preparing for special practice is quite a different proposition. These men need prolonged, careful study, lasting at least a year. Very little effort has been made to provide this sort of training in this country. The men entering our special field have been forced to rely upon the short, intensive, "brush-up" courses which are suitable especially as review courses for those already established in the specialty. This is the same sort of work that they found when they went abroad. Very few found the opportunity of doing the fundamental work by filling the place of clinical assistant for a long period in some properly equipped and properly organized Out-Patient Department. The sort of preparation that these men have received has been, to say the least, very unsatisfactory. Proper preparation cannot be obtained by listening to lectures and clinics and by filling a note book full of medical facts. When the medical student has finished his under-graduate course, he should be through, in a large measure, with "spoon fed" instruction. His development from that time on depends largely upon his own initiative and the most substantial assistance we can give him is to provide proper facilities and opportunities for doing the right kind of work, but it should be up to him to work out his own salvation under such conditions.

Dr. Shambaugh called attention to the fact often overlooked by our men seeking preparations in the special field, that the foreigners have never relied upon the taking of courses. These courses were provided to satisfy the demands of the American students who somehow have been imbued with the idea that by paying out money to an instructor for ladeling out facts for his consumption, he will get that which he is to indolent to work out for himself. The American Medical Association in its Council on Medical Education has taken up seriously this question of providing a proper minimum standard of preparation for those desiring to enter the special fields of practice.

The Committee on Oto-laryngology insists on the principle that the preparation for special practice should be put on the basis of genuine graduate instruction in which facilities are provided for doing the work, but the student must work in a large measure independently under supervision, but not by course taking. The plan approved of consists of one and one-half years' full time work. For the first year, this work must be done at one place. One-half of each day to be devoted to the clinical study of cases in a properly equipped and properly organized Out-Patient Department, such as exists in connection with many of our Class "A" medical schools. In this work the student is required to learn how to examine cases and how to make proper diagnoses. It is only in the latter period of the course that instruction in operating is provided. The other half day is to be spent in the laboratory of the University working on the fundamental sciences, especially the anatomy of the ear and nasal cavities. Here the same type of work is insisted upon: The student must work out the subject himself under supervision but not by course taking. After this year of fundamental training it is suggested that as far as the opportunities permit these men shall secure positions as internes in special hospitals or as residents in otolaryngology in general hospitals where they shall spend the minimum of one year. Those who are unable to secure such opportunities should spend the last six months necessary to fill out the minimum eighteen months requirement by continuing the work of the first year, or by taking such courses in various medical centers as would meet the approval of the institution where they have taken their first year's work, or by working as assistants in the office of some established specialist. On the completion of this work it is suggested that the institution where the first year's work has been taken, should issue a certificate stating that the student has had proper preparation for undertaking special practice.

As for providing facilities for this work, these already exist in connection with many of our Class "A" medical schools. It has been generally accepted that one hundred men turned out each year would amply fill all the legitimate requirements to take care of all the ear, nose and throat work in this country. For some years the country has been swamped with general practitioners, many of them rather unsuccessful, who have come to clinics and learned something about two or three operations of the nose, and throat and on the strength of this have gone back as specialists. Dr. Shambaugh thought one could easily say that if all of these men had proper training in the examination and diagnosis of cases so that they could appreciate the proper indications for surgical interference, only a small percentage of the operations which they are now attempting to do would be recommended.

THE FACILITIES FOR POST GRADUATE WORK IN CHICAGO

Dr. Otto J. Stein said this was a difficult subject for him to speak upon because they had as yet not formulated any definite plan upon which to carry out

their own work. Many critics have attacked post-graduate teaching with the idea that such schools tend to create specialists, but this he wished to emphatically deny. He believed this idea had arisen from the fact that many men attend the post-graduate schools and then return home and practice some one specialty, but he believed that this did not mitigate against the idea that these schools make specialists. They do not give men certificates saying that they are specialists, but give them a statement of attendance saying that they were in the school for a certain length of time taking courses in that particular line.

Medicine has changed from the homogeneous science of older days to a more complex science split up in heterogeneous groups and oto-laryngology has become a separate science, but this has not yet been recognized by the medical schools, and they still insist on teaching undergraduates oto-laryngology. This often gives students an idea that they know something about this specialty, they attend a post-graduate institution after graduating and if they like this specialty they study it and go back and practice it. Dr. Stein thought that medical science is now large enough for a student to devote all his time to the fundamental branches without going into any of the special branches, and was inclined to criticize any schools that give undergraduates instruction in oto-laryngology. The surgeon could, of course, speak of the complications of the nose and throat as he sees them and could touch upon the anatomy, and the man in general medicine could touch upon the complications as he sees them, but no special instruction in any specialty should be given to undergraduates. He believed that steps were now being taken to have this matter remedied.

Dr. Stein believed the oto-laryngologist himself is much to blame for the attitude of the general public in reference to this specialty. The specialty is too much split up, one man not doing any work on the larynx, another not doing bronchoscopy, another not doing mastoid operations. He believed that if a man wanted to be a specialist he should be thoroughly trained and able to understand, treat, discuss and teach all phases and branches of the specialty.

Another point touched upon by Dr. Stein was that the general practitioner should not be blamed for working in this specialty for he has been given the impression in his undergraduate days that is receiving some training in this line. He often is better qualified to do the work than the men who are associated with one in the same hospital and community, who are recognized as great surgeons, or orthopedists, or pediatricians, but who dabble in this specialty without ever taking a special course in the work.

Dr. Stein believed the future of this work rests entirely on these two phases of the subject: First, the work must be thoroughly standardized, as the outline given by Dr. Shambaugh showed to be possible. Second, each one in the specialty must be thoroughly equipped and able to take out tonsils, or remove a turbinate, or do mastoid operations or anything else that may be required, and not limit himself to any one or two phases. Much depends upon the

institutions by which we will create proper material from which these men will profit.

THE FUTURE OF DEFECTS OF SPEECH IN CHICAGO

Dr. Elmer L. Kenyon stated that disorders of speech are as inevitable as disorders of the nose, or the ear, or other anatomics—physiologic disorders of the body, and their treatment just as essential. The field is just as definitely a medical field as is the field of oto-laryngology in general. One trouble is that this field of effort does not fit in with the conventional tendencies of specialization. Some disorders of speech are capable of being fully understood only by the neuro-psychologist and others only by the oto-laryngologist. Either the neuro-psychologist should unite with the oto-laryngologist and handle the subject jointly, or else there should be special training in neuro-psychology and oto-laryngology for the special purpose of handling this subject. During the recent war the Government placed responsibility for treatment of disorders of speech chiefly on the department of oto-laryngology, and that helped to place responsibility for such disorders on this specialty.

A few years ago the Section on Oro-Laryngology of the American Medical Association created a permanent committee on the deaf child, and a year ago the Section extended the work of that Committee to include not only the deaf child, but the deaf adult, and also disorders of speech. It seemed to Dr. Kenyon that this was likely to prove to be an important step forward.

As to the present status of the work in the United States among physicians, so far as the speaker knew it, in Philadelphia where Dr. Makuen worked so long and so well no physician has taken up his work. Mrs. Steel goes on with Dr. Makuen's clinic in the Philadelphia Polyclinic and takes care of disorders of speech so far as possible in the same way as when he was living. In New York, Dr. Scripture has gone to Europe and left Mrs. Scripture in charge of the speech work in the Vanderbilt Clinic. A few years ago, Dr. J. Sonnett Greene decided to go into the work of disorders of speech as an exclusive specialty. He started what is known as "The New York Clinic for Defects of Speech," and is occupying an old residence for the work. This clinic has had much publicity, has interested many of the influential people in New York, and has a large clinical patronage. It has no medical school connection. In Boston, for some years, Dr. Walter B. Swift has been doing speech work. His public work now consists chiefly in going to different parts of the country at different times, where he establishes for a period of about six weeks, a center of instruction for lay teachers in the treatment of defects of speech. This is one of the means by which teachers in our schools in various parts of the country are now being instructed to a certain degree to take care of disorders of speech. In St. Louis, Dr. Max Goldstein has included disorders of speech in the work carried on by The Central Institute for the Deaf. At the University of Wisconsin, in Madi-

son, Dr. Smiley Blanton is giving excellent instruction in this subject. In Chicago a clinic in defects of speech has been conducted by the speaker at Rush Medical College for about eighteen years. Instruction has long been given to the undergraduate medical students, and is now beginning to be offered to graduate students of oto-laryngology.

Dr. Kenyon thought that what was especially needed in Chicago was laryngologists who were willing to practice in this field. From the educational standpoint what was required were facilities for giving a certain minimum of instruction for the undergraduates in all medical schools, a certain larger minimum for the prospective specialists in oto-laryngology and neurology, means for instruction to lay workers, and especially means for instruction to physicians who intend to specialize in disorders of speech. It seemed to him quite unlikely that all the medical schools in Chicago could ever have a clinic in disorders of speech. Instructors are certainly at present wholly inadequate, and clinical patients are likely to be diverted to the educational speech work in the public schools.

The way to handle the situation in Chicago, he believed, was to found an adequate institution which shall handle this field in a large way, from the treatment, research and the educational standpoints. This institution should furnish undergraduate instruction for all the medical schools in the city, for the graduate schools, for specialists in defects of speech, and for lay workers. Such an ideal institution, Dr. Kenyon said, should be directed by the combined educational medical interests in Chicago. Only when such institutions have been established here and elsewhere, and the question of knowledge and treatment have thus become standardized, will this field of practice begin to take its rightful place in service to mankind.

The Committee of the Section on Oto-Laryngology of the American Medical Association hopes in another year to bring forward a program which will encourage the development of this field.

Dr. Norval H. Pierce thought the definite plan of post-graduate instruction outlined by Dr. Shambaugh was practical and ingenious, as utilizing the possibilities of medicine as it is known in this country, but how is that plan to be carried out? It seemed to him that the whole subject of post-graduate instruction in Chicago is tinctured by our national beliefs. Democracy is of necessity diffuse in its efforts. It lacks definite scope. Dr. Smith may start a post-graduate school, Dr. Brown may start a hospital, and Dr. Green may even start an undergraduate school, all with different purposes and ideals. What we need is co-ordination and this, he thought, should take place through the university. He did not believe that post-graduate instruction would advance perceptibly if left in the hands of separate interests, but felt that co-ordination is sure to come. The Illinois Charitable Eye and Ear Infirmary is an example of our democratic incoordination. Dr. Pierce believed the men in that institution are, for the most part, doing the best they can and that they are guided by sane and practical policies, but thought it would never amount to any-

thing as a teaching and research institution as long as it was a little comet circulating in an orbit of its own. It should be under the jurisdiction of the university. The university has authority, it has the administrative ability, and is a cogent body that can and will direct its parts on known idealistic lines. He expressed his great disappointment and sorrow that they had never been able to place the Illinois Charitable Eye and Ear Infirmary under a university administration, because it is used largely for the purposes of personal advancement in operative technique. The assistants come there not in order to help along and forward the general purposes of the institution. They come there to gain experience and as soon as they are instructed, or as soon as they get as much as they think they can out of the institution, they either leave or they become disgruntled—because they are not made chiefs of service. A course of instruction is now being started for the internes, but without system. In a haphazard way one doctor speaks on something today and somebody else speaks tomorrow—perhaps on the same subject. There is no co-ordination, no real directing of the students, which should be done by heads of departments or by some controlling body. This university plan would prevent the entrance to the teaching staff of incompetent men, and he considered this a very important function of the university control. Such a plan would stabilize the institution; courses would be outlined and given by heads of departments who would be responsible.

Dr. Pierce believed the only possible way to carry out the plan outlined in Chicago is to put the various eye, ear, nose and throat institutions under university control.

Dr. Pierce did not agree, and did not believe that any teacher would agree, with Dr. Stein in his suggestion that we eliminate instruction of every kind concerning the eye, ear, nose and throat from the under-graduate course. It would be impossible to do so because of the hospital examinations for internes. They ought to know something of these diseases and of the examination of these organs when they go into practice.

As to what the Society was going to do to advance its professional interests, in the past the "old wheel horses" have been the ones who carried on the programs, but it is now up to the young men to "carry on" and carry on better than the old ones did. He thought it a deplorable fact that the programs of the medical societies are not much better now than they were twenty years ago. There is a lack of scientific research, too much superficial clinical work, too little individual thought and too little attention to the borderline matters of our specialty. We should all be as much interested in the science of our specialty as in the things that gain us our daily bread. Otherwise we are bound to degenerate. Physiology ought to be just as important as the pathology or the treatment of various kinds of diseases, and if this spirit can be implanted or activated we are sure to advance. If not, if the Society is to meet just to hear about the removal of turbinates, catheterizations of the Eusta-

chian tube, or operations in general, the specialty is going to degenerate and will not come up to the standard which Dr. Pierce believed will be set in the very near future.

Dr. J. Holinger said he had been interested in the subject of advancing otology for thirty years. After thorough discussion, three fundamental requirements were put down. First, it is necessary to have a large clinic. The most important cases are rare. Only a large clinic can furnish an adequate number to be worth analyzing. The second requirement is a large and well financed laboratory with sufficient instruments and sufficient space for men to work in. The third important requirement is ample fresh post-mortem material so that pathological material can be secured in the early hours after death has occurred. If the profession is unable to fit out and support such a clinic the general public should be called upon to help. The public should be educated to the importance of such work. The splendid work done in the Vienna clinic was only possible through the combination of a large clinic, good laboratory facilities and ample fresh material for postmortem examination. In the United States neither Siebenman nor Wittmaack would have had the opportunity of doing the important work that they have given to the profession. In going before the public and interesting them in the fact that these things are necessary to the further advancement of science, we will also interest the public in the things we are trying to do in their interest. They will recognize the difference between really scientific effort and quackery.

Dr. Joseph Beck said that in the past twenty years it had been his custom to take men and women into his clinic and train them for a year or more in the work of the clinic. During this time he has trained twenty-three men and women in this way. He realized that this work had some defects and intended to give it up in October, because he felt that what Dr. Shambaugh and the other members of the Committee of the American Medical Association had recommended was the best that could be had in this country or anywhere else. In studying abroad he had watched the clinics over there and if the plan proposed and outlined by Dr. Shambaugh goes through, we will have their method "beat off the earth!" The method that is employed in Europe, especially for Americans, does not compare with this new plan. We have the universities, the laboratory facilities, the large out-door departments, and all we need is to have the men connected with the university give their time to the work. Plenty of postmortem material can be secured if we can get rid of the crooked undertakers who prevent us from obtaining postmortems. The truth is that the profession is too busy to do the kind of work that Siebenman and many others over there do. There are plenty of men here who have the ability but they are too busy with other things, not always practice, to do such work.

If the method outlined by Dr. Shambaugh is put into effect, Dr. Beck felt sure that a man can become a very well trained specialist in this country. Dr.

Dean of Iowa City has a method of taking only five men at a time, and in that manner of training they can develop better than in any of the European clinics. In Vienna or Berlin they do not train the Americans as they do their own men but train their assistants a great deal as we now propose to do. By taking out the second or third assistant for a night or two of pleasure it is sometimes possible for the American student abroad to get an opportunity to do an operation, but seldom otherwise.

Dr. Beck agreed with Dr. Wilson that the taking of accurate histories is very important and that very few specialists do this. It is also important to follow up the cases as much as possible and make additional notes from time to time.

Another thing in touching upon the future of otolaryngology was that one should keep in better touch with the other branches of medicine. There is not enough reading done of articles dealing with borderline subjects. Dr. Beck called attention to what the Institute of Medicine of New York is doing in an attempt to interest the specialists in allied subjects, by furnishing comprehensive abstracts, such as has never been done before. He urged that the members of the Society support this movement so that it would be carried on.

In his clinic at the North Chicago Hospital in the future, Dr. Beck and his associates will do only the "brush-up" teaching for the men already trained as oto-laryngologists, as outlined by the scheme of the Committee of the American Medical Association and particularly by Dr. Shambaugh. Almost all of the men and women that Dr. Beck has trained in the past have been taken in charge by oto-laryngological friends of his, where they have served for a year or more as assistants and associates before going into practice for themselves.

Dr. Beck thought the facilities for post-graduate work in Chicago were excellent and that it would not be at all impossible to have an abundance of fresh postmortem material from that source also.

Dr. George W. Boot said he was not so much interested in the education of the specialists as in that of the undergraduate. He was sure it was a mistake to say that the undergraduate should not be taught anything about the eye, ear, nose and throat, for a man could not be taught too much about anything. It is a mistake to think that if these things are taught a man will not refer work to his teacher, for the reverse is the case. The more he knows the more cases he will recognize as needing the care of a specialist. Rush Medical College requires for graduation 1.2 major hours; Northwestern 16 hours clinical and 96 hours dispensary work; Loyola 0.8 of a major for ear, nose and throat work; P. & S. requires 60 hours clinical and 18 hours dispensary work. Dr. Boot believed Northwestern had the best plan of all. If he had his way he would dispense entirely with the didactic work and most of the clinical work. Anything that can be given in didactic work can be learned just as well from a text book, but he

would like to have the students do real work in examining noses and throats, not their own but those of the dispensary patients.

Dr. Boof agreed with Dr. Pierce that it was a crime the way the Illinois Charitable Eye and Ear Infirmary was managed but believed this was largely due to the men who managed the place and the heads of the departments. He also thought the way the Cook County Hospital is managed is another crime. There is a constant stream of out-door clinical material going there—enough material to supply all the classes that go through, but the only class that takes advantage of it is that from Loyola. He tried to get the classes from the College of Physicians and Surgeons to go there but did not succeed.

He believed Dr. Holinger's idea of a large institution where there could be many patients and abundant apparatus was a good one if it could be put into practice, but the obvious place for this is at the Eye and Ear Infirmary.

As to the necessity for accuracy of diagnosis brought out by Dr. Wilson, he heartily agreed. He had very unsatisfactory experiences along this line in hunting up histories of cases indexed as brain abscess at the County Hospital a year ago. Many of the histories were dictated by very capable men but were very incomplete, in many instances no statement as to location of the abscess being given.

Dr. Boot hoped that a different type of undergraduate teaching would be available in Chicago in the near future, and felt sure that if this could be brought about the future of oto-laryngology would be much brighter.

Dr. Shambaugh (closing) expressed himself as much pleased with the discussion. The subject had many angles which cannot be touched upon in a short discussion. A great mistake was being made in many places by allowing internes in general medicine to acquire the technique of nose and throat operations. These men had no opportunity of learning how to recognize the proper indications for such operations and when they go out into practice one heard on all sides of the indiscriminate slaughter of the tonsils as well as of the turbinal bodies and operations upon the septum.

Dr. Shambaugh stated that in the Out-Patient Department at Rush Medical College, he has for several years been carrying out a plan similar to that which the report of the American Medical Association outlined, for providing training in oto-laryngology. He has had a motto framed and hung in the Out-Patient Department which reads as follows:

"Three essentials for the successful practice of oto-laryngology, in order of their importance.

"1. Proper respect for the patient and interest in his welfare.

"2. Ability to make diagnoses and to recognize the proper indications for surgical interference.

"3. Skill in operative technique."

He insists that this relationship must always be kept in mind in providing instruction for those preparing to take up this work.

GREENE COUNTY

The regular annual meeting of the Greene County Medical Society was held at Roodhouse, Ill., on Friday, Dec. 9, 1921. The following officers were elected for the ensuing year: President, Dr. E. J. Peek of White Hall; vice-president and president-elect, Dr. J. A. Cravens of Greenfield, secretary and treasurer, Dr. W. T. Knox of White Hall; board of censors, Dr. Howard Burns of Carrollton, Dr. F. N. McLaren of White Hall and Dr. H. W. Smith of Roodhouse; delegate to the State Society, Dr. C. R. Bates of Roodhouse; alternate, Dr. W. T. Knox of White Hall.

Dr. J. L. Tierney of St. Louis delivered an excellent address on "Disease of the Heart."

Dr. Howard Burns read an interesting paper on "Pain of the Back," which brought forth a general discussion. The meeting was pronounced one of our best. The attendance was good, 15 members and 3 visitors.

W. T. KNOX,
Secretary.

KANKAKEE COUNTY

The regular annual meeting of the Kankakee County Medical Society was held at the court house last night. Dinner was served and a good attendance was recorded.

The principal business of the meeting was the election of officers for the year. The following officers were elected: President, Dr. William P. Cannon; vice-president, Dr. A. N. House; secretary and treasurer, Dr. H. L. Langlois; censor for three years, Dr. J. A. Bundy; delegates to State convention, Dr. J. A. Brown, Dr. H. L. Langlois.

MADISON COUNTY

Our November Meeting

The Madison County Medical Society met in Edwardsville on Friday, November 4, 1921, with Dr. E. F. Wahl, president, presiding. Thirty-three members and three visitors were present.

The applications for membership of Dr. George F. Greenleaf of Alton and Dr. L. D. Rocketteller of Wood River, were presented and referred to board of censors. The board of censors in the case of Dr. George Tracewell made an unfavorable report which was concurred in.

The secretary was instructed to draft resolutions opposing the Sheppard-Towner Maternity Bill and to send them to our representatives in Congress.

Dr. F. O. Johnson requested that milk and eggs be furnished to Hiram Marcum, which was granted. The secretary reported the receipt of \$100 from the Madison County Chapter of the Red Cross.

Dr. W. H. Mook of St. Louis gave an illustrated address on "Epithelioma of the Face." He was given a rising vote of thanks.

Adjourned to meet in Alton on the first Friday in December.

Marriages

Harriet Nevins Ballance to Mr. Leslie Robison, both of Peoria, Ill., December 3.

Marcus Rolla Damron, Pinckneyville, Ill., to Miss Elizabeth Sandlin, in St. Louis, November 1.

Louis Morris Greenberg, Sandoval, Ill., to Miss Elizabeth Sach of Chicago, November 6.

Nils Albin Killberg to Miss Anna Nelson, both of Chicago, December 3.

Personals

Dr. Benjamin Barker Beeson, Chicago, has been elected a corresponding member of the French Dermatological Society, and announces limitation of his practice to skin, venereal diseases and radium treatments.

Dr. Emilius Clark Dudley has been given leave of absence from the Northwestern University Medical School to accept an invitation from Yale University to give a course in clinical surgical gynecology at the Hunan-Yale College of Medicine, Changsha, China. Dr. Dudley will sail from New York, December 10, and expects to return to Chicago, about July 1, 1922.

It is reported that an oil well shot on the property of Dr. P. L. Markley of Rockford at Enid, Okla., last month, is a "gusher."

Dr. H. S. Chapin of Holder has retired after forty years' practice and removed to Tyler, Texas, on account of poor health.

Dr. H. P. Beirne, councillor of the sixth district, and director of the Radium Institute of Quincy, has been appointed a member of the Board of Medical Examiners of Illinois.

Dr. C. E. Trovillion of Metropolis has been appointed managing officer of the Alton State Hospital and assumed the duties November 15.

News Notes

—It is reported that Dr. Roscoe C. McCormick, Wauconda, pleaded guilty in the Lake County court to the charge of illegally prescribing intoxicating liquors without first having made a medical examination of the patient, and was fined \$100 and costs.

—The new \$500,000 addition to the Evanston Hospital was opened for public inspection, De-

cember 3. The addition is built in the shape of a cross so that future additions may be made on the 4 acres of ground surrounding it. The original building was dedicated twenty years ago.

—The state department of public health has completed arrangements for conducting a public health institute in Chicago, March 13-18, 1922. Complete programs for the institute have already been prepared and may be had upon request from the state department of public health at Springfield.

—At the annual meeting of the Institute of Medicine the following officers were elected: President, Frank Billings; vice-president, Thomas J. Watkins. The following officers were re-elected: Chairman of the board of governors, Ludvig Hektoen; secretary, Ernest E. Irons; treasurer, Joseph A. Capps.

—Of more than usual interest are the results of a recent investigation by one of the field physicians of the state department of public health into a mild outbreak of typhoid fever at Mount Carroll in Carroll County. The chain of epidemiologic evidence pointed to a certain milk producer as the source of four or five cases. A laboratory examination showed that the dairyman is an active typhoid carrier, although forty-three years have elapsed since his attack of the disease.

—The Health Officers School held a three days' session in Springfield, under the auspices of Dr. I. D. Rawlings, director of public health, beginning December 12. Dr. Rawlings opened the session with an address on "Scope of Work for District Health Superintendents." Dr. John Dill Robertson, health commissioner of Chicago, gave an address on "Health Administration and Bacteriology of Public Health Problems."

—*The Journal of Orthopedic Surgery*, of Boston, announces that it will be published quarterly, beginning this month, under the title, *The Journal of Bone and Joint Surgery*.

—The stock of drugs, library and "everything that belongs to a first-class doctor's office," the estate of the late Dr. G. C. Mohler, of Robinson, are for sale. Particulars may be secured from Mrs. Catherine Mohler Reinoehl, of Robinson.

—A manufacturer of Salvarsan adulterations, Gerloff, and his superintendent, von der Heyde,

were sentenced to three and a half years in prison and to five years disfranchisement in the Criminal Court of the County of Hamburg, Germany. Sixteen defendants received two-year sentences each, and sixty-two others who had conducted a flourishing business were fined 20,000 marks. Six persons were acquitted. Their product, not only worthless, but dangerous to health, resembled the genuine Hoechst product closely, both in appearance and in the labels and packing.

—December 22 the Missouri State Board of Health canceled the order requiring all passengers entering the state to present certificates of vaccination.

—Stevenson County Medical Society held a largely attended meeting, December 15, in Freeport, at Masonic Temple. Clinical cases were presented in the morning. After luncheon, Dr. E. P. Sloan, of Bloomington, president-elect of the state society, gave an address on "Goiter," illustrated with movie pictures. Dr. J. S. Evans, of the University of Wisconsin, discussed "Heart Diseases." Dr. Emil Windmueller, councillor of the first district, presented the subject of "Eclampsia." A banquet in the evening completed an unusually successful meeting. Dr. Sloan closed the program of toasts with an account of his recent trip to Europe with Mrs. Sloan.

—At a well attended meeting of the Winnebago County Medical Society, held at the Elks' Club last evening, nomination of officers took place. Dr. David B. Penniman was chosen president; Dr. Edward Weld, vice-president; Dr. L. L. Bowers, secretary and treasurer; Dr. C. M. Ranseen, censor, and Dr. John E. Tuite, medical legal advisor. The officers will be elected and installed at the next regular meeting of the society.

—The Kankakee City Medical Society which since March 1, 1921, have been doing the work usually done by the county and township physicians, have recently arranged to take over the duties of the city physician also. The members of this society are divided into four groups, each group serving three months. An eye, ear, nose and throat specialist and one or two men capable of doing major surgery serve on each group. This arrangement gives the delinquent a choice of physicians and better service at no greater expense to the community. The compensation

for this work maintains excellent headquarters, a growing library; and as funds accumulate they will be used to provide greater facilities and equipment for all of the physicians concerned. This consummation is really a by-product of the charity machinery of this community, which was formerly wasted, for no matter who are appointed to these three positions, the bulk of the charity work has always been and always will be done by the everyday physician.

Deaths

GEORGE W. AUSBROOKS, Dongola, Ill.; Physio-Medical Institute, Cincinnati, 1883; died December 9, aged 63.

GEORGE WASHINGTON BURNS, Whitehall, Ill.; Eclectic Medical Institute, Cincinnati, 1878; member of the Illinois State Medical Society; veteran of the Civil War; died November 14, from senility, aged 82.

JACOB G. CHAMBERS, Sadorus, Ill.; Geneva Medical College, Geneva, N. Y., 1864; practitioner for more than half a century; surgeon in the Civil War; member of the Champaign County Board of Supervisors; died November 3, from carcinoma, aged 78.

JESSE GLASCO, Alton Pass, Ill. (license, Illinois, 1887); Civil War veteran; died November 28, aged 81.

GEORGE W. GLASCOCK, Raleigh, Ill.; Beaumont Hospital Medical College, St. Louis, 1889; died November 28, following an operation for appendicitis, at a hospital in Evansville, Ind., aged 69.

FREDERICK W. GROTH, Chicago; Jenner Medical College, Chicago, 1904; member of the Illinois State Medical Society; died recently, from acute nephritis, aged 68.

ALBERT E. HERZOG, Ottawa, Ill.; College of Physicians and Surgeons, Chicago, 1899; died November 11, at the Watertown State Hospital, East Moline, Ill., aged 45.

JOHN MCGINNIS, Springfield, Ill.; Rush Medical College, Chicago, 1869; veteran of the Civil War; died suddenly November 30, from heart disease, aged 78.

GEORGE CONRAD MOHLER, Robinson, Ill.; Homeopathic Medical College of Missouri, St. Louis, 1894; member of the Illinois State Medical Society; died November 9, at the Lindlahr Sanatorium, Chicago, aged 69.

JAMES LEE REAT, Tuscola, Ill.; Eclectic Medical College, Cincinnati, 1858; Rush Medical College, Chicago, 1877; member of the Illinois State Medical Society; surgeon in the Civil War; practitioner for more than half a century; member of the Douglas County Board of Medical Pension Examiners for twenty-seven years; died November 26, aged 86.

THOMAS JOHN STAFFORD, Stockton, Ill.; Rush Medical College, Chicago, 1889; died November 21, from peritonitis and gallstones, aged 61.

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Original Articles

A SERIOUS MENACE AND A WAY OUT*

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During the 1921 session of the Oklahoma legislature a separate board was created for the examination and licensure of chiropractors and another board for the osteopaths. The osteopathic bill virtually provides that those who receive a license from their board may practice anything which they study in their colleges. Thus if they have had, say, four lectures on obstetrics they possess the same legal right and sanction as any regular practitioner of medicine to practice this specialty.

In Missouri there is also a separate board for the osteopaths. Heretofore it was necessary for an applicant to be a graduate from a reputable medical school—the question of the reputability of the school being decided by the state examining board. At the last session of the legislature the word “reputable” was stricken from the medical practice act and if an applicant is refused a license he may appeal the case and the question at issue be decided by a jury of laymen.

Texas also has a separate board for the osteopaths. What this will eventually lead to may be determined from what has happened in the past. Some twenty years ago Texas had three boards—one for the regulars, one for the homeopaths and one for the eclectics. If a man failed the regular examination he took the homeopathic examination, and if he failed in this he took the eclectic examination. And now he has one more chance, and the man who cannot get

through on four trials must indeed be hopeless.

The New York legislature passed the chiropractor bill last winter, but the governor vetoed it. Most vicious bills were introduced in the last session of the Illinois legislature but fortunately they all died in committee. If laws such as those now in force in Oklahoma and Missouri become general, the economic disadvantage to the man who wants to study medicine will become almost insurmountable. This must be evident when we realize that such a prospective medical man, after having finished his high school course, has to spend from six to ten years or even longer in completing his medical education and then he must compete on an equal footing, so far at least as the law is concerned, with men who need have no preliminary education whatsoever and who spend only a few months in a spurious education. The disadvantage to the public is even greater, for how can the average layman differentiate between the real physician and the imposter when the state issues a license and gives the same legal approval to both? To him who is not blind, the serious menace to both the medical profession and the public must be evident.

When a patient consults a physician, the first question the physician asks himself is, “What is the matter with the patient?” When this is determined, the next question he asks himself is, “What can I do to relieve the trouble?” Let us apply the same process to medical problems. What is the matter with the adjustment of medicine and medical laws to the public needs and what can we do to relieve the difficulty? Homeopathy was a protest against empiricism in medicine and against horse medicine in horse doses for human beings. Homeopathy was supposed to be based on a rational principal, namely, “*similis, similibus, curantur*.” As a matter of fact it was not a rational system of medicine and hence could not survive. When regular physicians sub-

*Read before the Coles-Cumberland County Medical Society at Mattoon, Ill., on September 22; before the Southern Illinois Medical Society at Belleville, Ill., on November 2; before the Champaign County Medical Society at Champaign, Ill., on December 8; and before the William Osler Medical Society at Ann Arbor, Michigan, on December 21, 1921.

stituted elegant pharmaceutical preparations in suitable doses for nauseous drugs in excessive doses, and employed rational medicine based on a knowledge of pathology and bacteriology, and when careful scientific observation and investigation supplanted empiricism and pseudo-rational theories, homeopathy had fulfilled its purpose and died a natural, unmourned death.

As stated in the introduction, the new menace is osteopathy, chiropractice, naropathy, Christian Science and other visionary systems that are springing up constantly. However, let us not rage against these, for all of these pathists are, in part at least, but a protest against our neglect of a certain group of minor though very distressing afflictions from which the public demands relief.

During the 1915 session of the Illinois legislature I had occasion to spend a considerable amount of time at Springfield as President of the then Illinois State Charities Commission in the interests of a bill for The Legal Commitment of the Feeble Minded. During the same legislative session the osteopaths were making a strenuous fight for recognition. Quite a number of the legislators on their own initiative consulted me about the osteopathic bill and I remember one very capable and conscientious representative who made the argument, illustrated by a number of cases, that there was a certain class of diseases to which the regular medical profession had not and was not paying sufficient attention. This argument made a deep impression upon me and I saw the justice of his contention.

We can only defeat the menace by meeting it squarely and treating every ailment better than any of these insufficiently trained pseudo-scientific intruders can. And I propose now to illustrate one phase of this problem and how to meet it. I have chosen a disease of which I have made an intensive study for twenty-seven years and which so far as I know has never been thoroughly described. I have chosen to call it "Chronic Fatigue Intoxication" of which I will very briefly consider only the symptomatology.

Ordinarily the body rapidly recuperates from moderately excessive fatigue but if this excessive exertion is persisted in day after day for a considerable period of time and particularly if the work is done at an abnormally high rate of speed, the point ultimately comes when the sys-

tem becomes so supersaturated with fatigue material that it is no longer able to rid itself unaided of this excessive accumulation.

The disease under consideration may conveniently be divided into two stages, namely, the acute, early, active or labile stage, and the late, fully developed, chronic, or stabile stage. These two stages while relatively distinct nevertheless gradually merge into each other.

One of the most characteristic symptoms of this condition is the fact that re-action is always out of proportion to the stimulus acting, and this applies with equal force to physical stimuli and physical re-actions, and to emotional stimuli and emotional re-actions. In the acute labile stage the resultant reaction is out of all proportion in its intensity, while in the chronic stage the re-action is disproportionately sluggish and feeble.

Another very noticeable peculiarity is that as it progresses the area of normalcy in any one field may become very much contracted. Thus, for instance, the re-action to heat or cold may be greatly accentuated, and such a person may feel relatively comfortable at a temperature varying between 68 and 72 degrees F.; may feel oppressed and begin to perspire profusely on the slightest exertion if the temperature rises to 80 degrees F., and suffer from chilliness if it drops to 60 degrees F. Similar phenomena may occur with any form of stimulation to which the organism may be subjected.

Some of the first symptoms to appear and the last to leave, if the patient is put on proper treatment, are dermatographis, urticaria, angioneurotic oedema and pruritis. Herpes labialis is likely to occur in these cases when there has been a period of extra stress. In some of these patients it occurs every time that the patient has over-taxed his strength, or has been exposed to bad air for a number of hours, or has lost considerable sleep.

The pruritis associated with this affection may be localized or general. If the former, it is more likely to affect those portions of the body where the mucous membranes and the skin meet, as the margins of the eye-lids, nose, mouth, anus and genitalia, and the palms of the hand and the soles of the feet. In either case it is apt to be intractable and very difficult to control.

Seborrhea sicca and Seborrhea oleosa with premature baldness and premature grayness are also

quite common. The skin particularly on the exposed portions of the body such as the hands and face may be overstretched, thin, shiny, dry, almost lifeless in appearance and ashen gray in color, or blue, moist, cold and clammy, or loose and flabby; or again red, florid, hard, dry and swollen; or again the complexion may be alternately livid and florid or ashen. If the skin is very dry and lifeless fissures of various depths and varying degrees of severity may develop. These fissures may occur anywhere but are most likely to occur on the hands and feet, about the nares, mouth, axillae, groins, bends of elbows and knees, genitalia and anus.

On the covered portions of the body the skin is often dry, thickened, roughened and pigmented. If the pigmentation affects the exposed portions of the body, particularly the face, it cannot be differentiated from the condition described as *Cloasma*.

The subcutaneous areolar tissue is usually the seat of a diffuse oedema which infiltrates these structures, separates the skin from the deep fascia and in that way obliterates the normal contour and creases of the body. If this involves the tissues of the face, particularly if associated with thickening of the skin, it often gives the intelligent person a very unintelligent look simulating sometimes the expression of countenance so frequently seen in those habitually indulging in alcoholic liquor to excess; makes the hands look puffy, pudgy and swollen so that the play of the extensor tendons cannot be seen and the normal depressions are obliterated. The same changes though less noticeable are found in other portions of the body.

Ofentimes there are deposits in the subcutaneous areolar tissues and intermuscular septa varying in size from a split pea to a black walnut, rather firm, always sensitive, but during acute exacerbation very painful and excruciatingly tender.

The muscular system is one of the first to be involved and one of the last to get well. Hyperirritability and spasms of both the voluntary and involuntary muscles are the chief manifestations. The contractions may be either simply fibrillary, or tonic spasms of the whole muscle or muscle group. The fibrillary contractions can often be observed in any of the voluntary muscles while making a general physical examination and are

often also noticeable during ordinary conversation with such a patient in the orbicularis palpebrarum and in the small superficial muscles about the corners of the mouth. In the more severe cases the tonic contracture of the muscle or muscle group is intermittent and brought out only when the muscle is stimulated by mechanical irritation such as handling or gentle tapping, while in the still more severe cases the muscles are often in permanent tonic spasm not even relaxing completely during sleep. In these severe cases the muscles often feel as hard as a board and there is very little difference in their consistency whether at apparent rest or when a voluntary attempt is made at further contraction. In other words, they are always more tense than under normal conditions.

If the tonic spasm involves the facial muscles very characteristic expressions of the face develop. Thus, if the risorius muscles are principally involved the patient often has a chronic grin though he may not feel a particle like laughing. If the corrugator supercilli are principally involved he bears a constant frown and looks as though he were suffering from a chronic grouch. If the depressor anguli oris are involved the corners of the mouth are pulled down and he has the expression commonly known as "down in the mouth." If both the last mentioned groups of muscles are simultaneously involved the patient usually looks as though he had just buried his last friend.

The muscles most frequently affected are the pectoralis major, trapezius, deltoids, spinal complex, muscles of the fore-arm, and calves of the leg. The latter two often become so hard that it is quite impossible to indent them.

The spasm in the early stages may make the muscles appear as though they were actually hypertrophied, but on more careful study it will be found that this is really only a pseudo-hypertrophy. As the disease progresses the pseudo-hypertrophy is often replaced by marked muscular atrophy, at first involving only single muscles or groups of muscles and later all the skeletal muscles. This muscle spasm produces many secondary symptoms. After a period of rest the patient finds it difficult to get started. Then after a short period of activity he catches his second wind as it were, limbers up somewhat but his muscles remain unsteady, not com-

pletely under the control of his will, somewhat shaky and without the ability for fine co-ordination.

With almost all cases, even in the early ones and always in the late ones, there is some joint involvement which is very characteristic. This process may involve only one or two joints or it may involve every movable joint of the body, is insidious and gradual in its development, sometimes remaining stationary for months only to flare up again, or it may take years before it is fully developed.

The joints become nodular, swollen, painful, tender and progressively stiffer. On the occasions of acute exacerbation they puff up more, feel hot to the touch and become reddened. The stiffening is not due to a true ankylosis for, except in the terminal cases, by gentle, slow, passive motion extension and flexion can be accomplished almost or quite to the normal extent. The involvements seem to be confined entirely to the periarticular structures, namely tendons, ligaments and capsules.

The tonic spasm of the skeletal muscles associated with these joint involvements results in very decided limitation in motion which in the milder cases gives the patient a very characteristic walk, later puts a heavy burden on the will in willing to move the joints and in the severest cases the condition becomes so pronounced that voluntary motion becomes impossible and passive motion, because of long continued non-use, very difficult and very painful and towards the end quite impossible.

In many of these cases the gastro-intestinal symptoms are the most distressing and are often the ones which bring the patient to the physician. In severe cases the lips are red, dry, parched, cracked and covered with herpes. The tongue is usually red and beefy at the borders, sometimes fissured, and even in the mildest cases the dorsum is always covered with a thin white fur which in severe cases may become a thick velvety coat which has the peculiarity that it practically always retains its white color no matter how thick it may be. This, as well as the rarity of pyorrhea, I am inclined to ascribe to the hyperacid condition of the mouth and stomach which is so usual in this condition and in some cases so pronounced as actually to cause serration and eburnation of the teeth. In the early cases the

gums are often swollen, spongy and bleeding, while in the later stages they are often receding. Pyorrhea is surprisingly rare. The tongue and mucous membrane of the cheeks are often the seat of recurrent attacks of canker sores.

The muscle spasm already referred to may involve the constrictors of the pharynx, resulting in spasm of the gullet, sometimes making swallowing very difficult, or it may involve the circular muscles of the lower end of the oesophagus and result in a true cardiospasm. In the stomach proper the disease may manifest itself by marked hyperacidity, and again in anacidity with all the symptoms accompanying either of these conditions. Regurgitation of sour water, eructations of gas sometimes in enormous quantities and with much noise, burning pain in the stomach and oesophagus; distention of the stomach with gas, nausea, and often very severe gagging and retching though rarely vomiting may be prominent symptoms. There may also be a very pronounced pyloro-spasm.

In quite a number of these patients we find marked gaseous distention of the intestines with much flatulence and the repeated expulsion of foul-smelling flatus, alternate looseness and constipation of the bowels. In the later stages of the disease we often find severe constipation, sometimes so severe as to cause a suspicion of organic obstruction, stools dry, hard, scybulous, requiring the daily ingestion of strong cathartics or the daily use of enemata. As a result of these digestive disturbances the patient often becomes seriously undernourished.

The genito-urinary symptoms are not very numerous but when present are quite characteristic and sometimes very distressing. In nearly all cases, and particularly the severe ones, urine is very acid and sometimes causes considerable burning and tenesmus when it is being voided. As a general rule the urinations are increased in frequency and nocturia even up to a dozen times a night is one of the most annoying symptoms. This nocturia is often present in spite of the fact that the urine, with the exception of hyperacidity, may be perfectly normal, both chemically and microscopically.

The respiratory tract is unusually sensitive to irritation. A minute quantity of irritating substance in the air which would not be sufficient to produce any appreciable affect in the normal

individual may produce extreme irritation in the respiratory mucous membrane of a person suffering from this affection, which in one case may produce extreme dryness of the nose and throat or in another case a profuseness of secretion such as is observed in Hay Fever or even in Bronchorrhea. Many of these patients are constantly complaining about a cold in the nose and head, and on examination the Snyderian Membranes as well as the remaining lining of the nose and throat is found to be markedly swollen and congested and local treatment does not give permanent relief until the general systemic disorder is cured. Some of these patients have frequent severe sneezing fits followed by profuse watery secretion during seasons of the year when Hay Fever is out of the question and again they complain of a severe burning dryness of the nose and throat and even of the larynx. Some of them are troubled with a constant short hacking cough and have great difficulty in getting up a small amount of thick sticky mucus, which continues to recur with a constant recurrence of the cough. As a result of this some are chronically hoarse without the laryngoscopic examination showing any pathological condition of the true vocal chords, again others in talking find their voices involuntarily jumping into high falsetto which they find difficult and even impossible to control. Some of these patients have severe attacks of asthma.

In the milder cases the circulatory system does not show any characteristic changes, while in the severer cases the variation from the normal is usually quite pronounced. In these latter cases the heart rate at rest is usually a little higher than that found in the average ambulatory patient. In addition, after a very short period of strenuous exercise the heart rate will increase more rapidly than it does normally and the rapidity of its increase will depend largely upon the severity of the condition. In the still more severe cases there is often a missing of the pulse beat of from every fifth to every tenth beat. This peculiarity can be observed in these patients particularly after a few days of more than average strenuous work; it will disappear with prolonged rest or after complete recovery. In several very severe cases I have in addition noted typical attacks of angina pectoris. In one such case in particular, the attack of angina pectoris

always came on after a day or two of strenuous exertions.

The blood pressure is sometimes slightly below normal, more usually normal and again sometimes increased.

The blood count averages about as does the blood count in the average patient consulting a physician in his office, with the following two exceptions: First, that some of the more severe cases have a rather low leukocyte count, and, second, nearly all of the very severe cases have a relatively high eosinophile count and often a true eosinophilia. Thus one of my severest cases had a leukocyte count of 3,600 per c. c. with fifteen per cent of eosinophiles, or 540 eosinophiles to the c. c. This patient had not only a low leukocyte count, but in addition a high percentage of eosinophiles with a relatively large number of eosinophiles per c. c., namely, a true eosinophilia. Another extremely severe case had 1,328 eosinophiles to the c. c., while one year later when she had practically recovered no eosinophiles were found in 100 cells counted. One of my severe cases had an eosinophilia varying from five to twelve percent during a period of sixteen months. The lowest number of eosinophile cells found during this period per c. c. was 410, while the highest was 1,178, while after her recovery her eosinophiles dropped to one percent, or 60 per c. c.

The range of normal reaction to stimuli of all kinds is greatly reduced. Thus a stimulus that would produce a normal reaction in the average person may have a greatly exaggerated effect or a relatively slight effect and in extreme cases no effect at all, depending upon the severity of the disease. The first result is likely to occur in the earlier stages of the disease, the second during the moderately advanced stages of the disease and the third during the severe terminal stage. This peculiarity can be traced through all the symptoms but more noticeably in the symptoms referable to the nervous system. The nervous manifestations are quite varied and are determined by the particular portion of the nervous system involved. If the motor nerves alone are involved a special group of symptoms develops; if a purely sensory nerve is involved another set of symptoms is present, while if a mixed nerve is affected still another group of symptoms occur, and if in place of deposits on

the nerve or in the sheath of the nerve the symptoms are caused principally by the toxins circulating in the blood, the vasomotor and mental symptoms predominate. If the motor nerves are particularly affected by pressure from without by the deposits heretofore described or by deposits within the nerve sheath so that there is either extreme irritation on the one hand or interference with the passage of nerve impulses on the other, the following motor disturbances are found to be present: fibrillary or tonic contraction of the muscles supplied by the affected nerve, depending upon the severity and location of the nerve pressure. This tonic spasm sometimes results in very severe muscle cramps more often affecting the lower extremities, though it may affect any of the muscles. In extreme cases nearly all of the muscles of the body, striated as well as unstriated and mixed muscles, may be involved. In cases where only individual motor nerves are involved we may have tonic spasm involving only certain muscles or we may have a clonic spasm as observed in tic convulsivus and convulsive torticollis.

The patellar reflexes in most cases are apparently normal. In early acute cases they may be markedly exaggerated while in the late terminal cases they may be sluggish or entirely absent.

The vasomotor symptoms are quite characteristic. In the early acute cases there is a rapid alternate dilatation and constriction of the vessels even on very minute physical or emotional stimulation. In the later stages we get very characteristic symptoms of extreme vasomotor irritation or vasodilator paralysis when the complexion becomes an ashen gray, and in other cases extreme vasomotor paralysis when the patient becomes chronically florid. Either of the latter two conditions associated with a marked thickening of the skin when alcoholism and nicotine poisoning can be excluded are, I believe, usually conclusive evidence of the existence of this condition.

The sensory disturbances are varied, sometimes moderate and sometimes extreme, consisting of numbness, tenseness of the skin, burning and often severe itching, the burning being particularly annoying across the back, on the palms of the hands and the soles of the feet. There may be paresthesia, hyperesthesia and hyper-

algesias present and most of them complain a great deal of the limbs going to sleep. If the sensory nerves are subject to pressure by the above described deposits the sensory disturbances are very marked, in fact neuralgia is one of the most frequent and distressing symptoms of this affection. The neuralgia may be general, multiple or single. All of the sensory nerves may be affected. One of my patients suffering from this condition said half jokingly and half seriously: "I even have rheumatism in my hair" and the fact was that brushing his pompadour ever so lightly caused severe pain. One of the large nerves can actually often be followed out by the examining finger both because of its actual, palpably, swollen stage and its extreme sensitiveness. Many of the patients suffer severely from sciatica, lumbago, facial neuralgia and neuralgia of the brachial plexus, and may suffer from neuralgia of one or all of the sensory nerves.

These patients find it very difficult to adjust themselves to new conditions and surroundings and while they are always dissatisfied and trying to get away from their present occupation they never do well in their new vocation. The city man suffering from this condition tries the country and practically always fails, the farmer sells his farm, goes into business in the city and makes a failure of it. Among the well-to-do class many of them run from physician to physician, from sanitarium to sanitarium, some becoming almost wanderers on the face of the earth, traveling hither and thither from country to country trying to get away from their misery. It has seemed to me sometimes that what they are really trying to do is to get away from themselves and their bodily discomforts which of course they cannot do until death relieves them. And let us learn to realize that this ailment is often more painful than an ulcerated tooth or a boil and much more distressing because of its persistency.

Extreme irritability is one of the constant symptoms in the severe cases and one of the earliest manifestations of the disease and appears in many forms. Thus these people are, without exception, excessively sensitive to all emotional influences and an innocent unoffending remark by a friend may be misconstrued and taken up as a slight and result in a flood of tears, or the same

remark may be construed as an insult and result in an outburst of rage. This irritability is equally manifest when the stimuli affect the ordinary senses or the special senses. Thus, the rubbing of the finger tips over a lightly roughened surface instead of simply being disagreeable may be expressed as causing excruciating pain.

These patients practically all show defective emotional reaction and control, probably best expressed by the word extreme. Thus, they are apt to be either over-cautious or reckless, timid or fool-hardy, shy or over-self-confident, extremely reserved or obnoxiously bold, mushy or stubborn, over-credulous or over-suspicious. They are apt to be very arbitrary and unreasonable, garrulous, controvertial, argumentative and dogmatic, forgetful, lacking in judgment, excessively vain, and hence subject to flattery, often stubbornly adamant to the well-meant advice of their best friends and liable to do anything and everything to their own detriment in the hands of designing flatterers.

In the earlier stage, the irritative labile stage of the condition, the patient is constantly trying to go faster and faster. One of my patients expressed it in the following manner: "When riding in a street car or an automobile or even a train, no matter how fast it goes I feel like getting out and pushing." When such a patient is speaking his mental processes are constantly running away from his ability to express himself in words, he is annoyed by the fact that he cannot speak as fast as he is thinking. If he is writing, he becomes more and more irritated by his inability to keep up with his thought processes, and his writing becomes more and more illegible, partly because of exhaustion of his forearm muscles and partly because of the ever increasing speed in his effort to keep up with his thought processes.

These patients are unable to recover themselves quickly if they make a false step, be this false step a physical or a mental one. In other words they lack physical and mental nimbleness. Such a person, if he make a physical misstep is likely "to fall all over himself," as the boys say, before he can recover his equilibrium, and if he makes a blunder in his speech he is likely to get in deeper and deeper in his effort to extricate him-

self with the result that his apologies and explanations add only to his embarrassment.

The impairment of judgment above referred to manifests itself in many ways. It will often explain how a business man who has had the finest reputation for unusual business judgment will suddenly lose his grip on things and his business will deteriorate. The same is not an uncommon experience among over-worked professional men and explains how it happens that some of the leaders of the professions bring out and give expression to such utterly stupid theories and public statements in the later years of their lives. In their home lives, too, some of these patients show pronounced changes. Thus, a person who has been fair and sensible in his home expenditures will gradually become more and more penurious, refusing to buy little comforts and conveniences, to pay his honest workmen a reasonable wage, but spend with a flourish and a lavish hand large sums of money on some entirely useless but more or less showy project.

In business as well as in their private lives these persons are likely to become excessively optimistic or senselessly pessimistic, believing in the first place in all kinds of wild, unwise schemes, investing and losing their money in them or completely losing confidence in themselves and afraid to venture anything. This latter condition may verge into a senseless fear or even extreme melancholia, sometimes actually leading them in desperation to suicide.

The sloven, the laggard, the phlegmatic and the weak willed are rarely ever affected. It attacks the finest type of men and women usually in middle life, greatly shortens their period of usefulness and their enjoyment of life, leaves them partial wrecks or complete derelicts just at a time when their experience and mature judgment would make them especially useful to the community, state and nation; wracks their later years with pain and suffering and robs the aged of that peace and serenity to which those who have faithfully served their fellow men are justly entitled.

Conclusion: What has the general medical profession done for the relief of these sufferers? What have we done for the overworked farmer or his good wife who have come to us suffering with this condition? I dare say practically nothing. If time permitted I could give you an in-

teresting history of one of these sufferers who had consulted twenty-three regular doctors of medicine without getting a particle of relief—in fact, steadily getting worse. And among the men whom he had consulted were a half dozen of the most prominent medical men of Chicago as well as a number of prominent eastern internists and neurologists. To me the wonder is that he stuck so long to the regular practitioners of medicine without trying the quacks.

Medicine and surgery have probably made greater progress in the last thirty-five years than any other department of human knowledge. But the good farmer with his lumbago or sciatica forgets that he may have been saved from typhoid fever and malaria by sanitary science, from diphtheria by antitoxin, from smallpox by vaccination, or mayhap from death from strangulated hernia or appendicitis or gallstones by a timely, skillfully executed operation, and forgets the fact that the length of life from 1851 to 1921 has on the average increased from thirty-five years to over fifty. I say he forgets of these benefits and wants relief from excruciating pain and from many of the symptoms which I have above described for which we have not given him relief with the degree of regularity to which he is entitled. And what wonder is it when after he has consulted three or four of his local physicians and possibly one or two noted specialists in distant cities that he seeks relief at the hands of quacks and charlatans? And in the long run it is well that he insists on getting relief. Progress depends upon dissatisfaction with things as they are. The dissatisfied run to quacks where they rarely get relief but incidentally incite the regular practitioners of medicine to greater and greater effort. Every community has a small percentage of citizens who belong in the class so accurately described by Barnum who are not happy unless they are buncoed. If the medical profession were 100% perfect these would still be running to the quacks. But when we become nearly 100% efficient, when we are willing to make a careful study and to learn how to treat successfully this and other similar ailments, the menace above referred to, which is a real menace not only to the medical profession but to the public as well, will become almost negligible.

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MANAGEMENT OF FRACTURES* NEAR JOINTS

PHILIP H. KREUSCHER, M. D.

CHICAGO

It is my purpose in this paper to emphasize some of the more important principles underlying the management of fractures near joints and to call attention to some of the serious obstacles which often confront the surgeon in these cases.

In ordinary simple fractures of the shafts of the bone not adjacent to the joints the results are usually good if one just keeps in mind that regeneration of bone or bone healing takes place from the periosteum, the medulla, and the cortex, in the order mentioned, and that we must place these elements into proper apposition with adequate fixation. Although I believe the fixation of fractures to be very important, we have been criticized for immobilizing fractures too greatly. Ten years ago one of the German surgeons made this statement to Dr. Murphy: "The reason you Americans have so many non-unions is that you immobilize your fractures too severely and for too long a period of time." In recent years I have seen cases in which I believe this was true.

I wish to emphasize the advisability of making reductions and fixations of all fractures, whether they be simple or compound, with the aid of the fluoroscope. I have for some time worked on a plan by means of which the traction appliances are connected directly with the fluoroscopic table. It seems to me such a device should be a part of the ordinary equipment of the x-ray laboratory in every hospital.

In the fractures near joints there are certain difficulties which the surgeon meets in practically every instance. First and foremost, there is the difficulty of placing the fractured ends into proper apposition, and, second, the inability to retain them in place even though they have been correctly approximated. One has so little control of the short end of the bone, because the ligamentous and capsular attachments tend to bring about a distorted position of the end nearest the joint. The various splints which have been so ingenuously devised, and even closely applied plaster molds or casts are often inadequate for holding the fractured shoulder or hip in correct

*Read at 71st Annual Meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

apposition. The third reason for bad results is the fact that so frequently the fracture extends into the joint with a consequent bleeding into the joint, thus complicating both reduction and fixation. If we should have the additional complication of dealing with a compound fracture, then we are confronted with the most difficult fracture imaginable. Infections of the joint and subsequent osteomyelitis are not at all uncommon and may result disastrously unless treatment is early and radical.

In cases not compounded, it is frequently necessary to aspirate the blood from the joint cavity, as it is unwise to permit the fibrinous exudate to remain within the capsule and favor fixation.

In the infected compound cases, adequate drainage is imperative. I am opposed to open tube drainage of any joint. The same end may be accomplished if one will aspirate the infected liquid blood at frequent intervals and inject into the cavity an efficient antiseptic, preferably the 2 per cent formalin in glycerin, as advised by Murphy. Since January, 1920, I have added 2 per cent apothesine to the formalin in glycerin solution, and have found that the pain following such an injection is almost negligible. If the infected blood has become clotted and cannot be aspirated, then the joint must be opened and the organized blood removed mechanically.

In children, epiphyseal separation or involvement of the epiphyseal line is apt to bring about marked deformities and to have a definite bearing on the subsequent growth of the bone. I have in mind one case of a compound fracture of the lower end of the femur in a child which became infected and was subsequently operated on a number of times. Finally, the wound healed and the bone seemed quite normal and we lost sight of the patient for a number of years, only to find when the boy was brought back that the epiphyseal line on the inner aspect of the femur had been disturbed, either by the fracture and infection or by the operation, and that that portion of the epiphyseal line had ceased to function and the result was a marked bow-leg deformity. In the epiphyseal separations, it is imperative that the approximation be as nearly perfect as possible, if we wish to avoid deformities.

The fractures which give the surgeon the most serious trouble are those about and near the

elbow, hip, ankle and temporomandibular articulation, in the order mentioned. We must remember that the hip, knee and ankle are weight-bearing joints and that any interference with the function of these will seriously incapacitate the patient for future usefulness.

Let us consider separately the management of the various fractures, beginning with the one involving the temporomandibular articulation. One case which came under my observation was that of a young child who had fallen upon the point of the chin and sustained a fracture of the mandible about a half an inch from the articulation. This fracture was recognized and immediately immobilized by putting a firm plaster cast about the chin and head and kept there for quite a considerable length of time. What was the result? The fracture healed beautifully, but the callus extended over to the articulation and not only immobilized that joint, but as a result of the long-continued fixation, the articulation on the other side had also become fixed, and an arthroplasty on both joints became necessary to permit the patient again to open his mouth.

It is my belief that this type of fracture is best treated without so much immobilization. The masseter muscles act as a fair splint without any other method, and the Murphy wedge placed between the maxillæ on either side, will give one the same effect as a Buck's extension when applied to the extremity, namely, it will keep the articulating end of the mandible drawn fairly away from the articulation in the temporal bone. One will not get the terrific fixations if that method is used.

I have recently had considerable experience with fractures of the humerus involving the shoulder-joint. In these cases what I said in the beginning is especially true. One cannot in any way manipulate the joint portion of the humerus and bring it into proper apposition with the remainder of the shaft. I believe that 95 per cent of the shoulder-joint cases must be reduced by open operation. What I wish to say now concerning open operation applies in all procedures in which it is necessary to expose the bone and apply a fixation of foreign material. I never operate on these cases until about ten days after the fracture. At the end of that time, the blood-clot which has formed has been partially absorbed. Nature has had time to throw about

the torn and fractured areas a cofferdamming which is our best protection against postoperative infection. One can readily see what is apt to happen if one of these cases is opened on the day of the accident. The blood-vessels are still open, bleeding is profuse and infection almost imminent. The swelling is so great that it is difficult to expose the fractured ends through a small incision. The operation must be done according to the Murphy-Lane technic with the utmost aseptic precautions. Neither your gloved fingers nor those of your assistant's must be placed into the wound. No instrument should be used which has touched your hand or any object which is not perfectly aseptic. All the manipulation is done with instruments as well as the application of your fixation appliance. Sutures and ligatures must be tied with forceps and the incision closed without drainage.

Where there has been compounding, the operation must not be undertaken until the infection has entirely subsided and the wound has remained healed for from six to eight months, because I believe it is impossible to determine just when the infection ceases in these cases. So often we have opened them believing that they were perfectly sterile and found small abscess cavities which had remained dormant, but the pus from which very soon became active and gave a seriously infected wound.

In the fixation of fractures of this type I have used several appliances. The Lane plate is best indicated when the fracture is not too near the anatomic neck or if the fracture does not extend through the head into the joint. In a number of cases I have used the ordinary wire staple to great advantage. The upper prong of the staple is driven into the head and the lower prong into the neck of shaft. In one case I applied two staples, one anteriorly and the other laterally, giving me a splendid fixation of the head to the neck in both directions. Some of my colleagues have used the Smith bone-clamp, a very ingenious device, but which I believe to be a bit too cumbersome in the hands of the average operator. A bone-graft in the vicinity of joints, as well as in the shaft of the bone, is never indicated, unless nature has proven herself inefficient to bring about the normal healing of the bone. The operation is such an important one and involves so much technic that I believe it is contra-indicated

except as stated above. If one has already fixed the head to the neck, it is not necessary to apply the customary fixation apparatus to the arm. Simply place the arm in an arm sling, keeping the elbow slightly elevated, with the palm of the hand flat upon the chest in supination.

Now we come to the fractures about the elbow-joint, the simplest of which is the fracture of the olecranon process, which can frequently be reduced without operation if the arm is placed in the extended position with the palm halfway between supination and pronation. Fracture of the head of the radius is not quite so simple, because of the attachment of the biceps about an inch and a half from the articulating end. However, the flexed position of the arm holds the head of the radius firmly against the fractured end and often gives satisfactory results without an open procedure. The Y or T fractures, involving the lower end of the humerus, give more trouble than any other. Usually it is the internal condyle which is fractured. If approximation of the fragments can be accomplished under the fluoroscope, one can often get good results. If, however, the condyle has been entirely separated and displaced, it is necessary to do an open operation and fix it in its proper relation by means of a screw, nail or peg. I wish to warn against early manipulation of the extremity in fractures of the internal condyle. This early manipulation promotes the callus formation and frequently gives troublesome exostoses. If a compound fracture involves the elbow-joint, it is best to fix the extremity in that position in which it may be most useful should ankylosis result, viz, at approximately a right angle, with the hand halfway between supination and pronation. If we had a case in which both elbows were involved and we had reason to believe that they were both to be ankylosed, we would fix one at a lesser degree than a right angle and the other at a greater degree. The reason for this is obvious.

Colles' fracture is so well managed by most surgeons that I believe we scarcely need mention it. Permit me to say that a careful and complete unlocking of the fragments and then good apposition with the wrist partially flexed and slightly abducted will give the best results. It is my practice in these cases to apply a two-thirds plaster splint over the back of the forearm, extending down to the second joint, just permitting

the tips of the fingers to be free for early active and passive motion. I never permit an impacted Colles' fracture to remain impacted unless the position is perfect. I have seen several disagreeable adduction deformities of the hand in impacted cases, which the surgeon saw fit to leave untouched.

One of the very annoying fractures which the surgeon is called upon to treat is that of fracture of the phalangeal bones. The ordinary splints, even though one used the adjacent normal fingers as lateral supports, are often inadequate, especially when the fracture is near the joint. I have, on several occasions, made use of toupéc plaster to hold the splints in close approximation to the finger. By this method, the splint is held very securely to the skin and to the palm of the hand and the appliance may be bent or twisted to meet the requirements of the individual case.

To me, the next most interesting fracture is the one at the neck of the femur. Here we are confronted with a number of unusual conditions. First, the fracture is quite inaccessible; second, it is always very near or within the joint capsule; third, there is usually an interposition of capsular or ligamentous tissue between the fractured ends; and fourth, there is an absorption of the bone of the neck which begins almost immediately after the accident and is due to the involuntary muscular contraction which forces the fractured neck against the head and can only be avoided by the timely application of a Buck's extension. Again, we have in these cases a laceration of the nutrient vessels of the neck and head, and possibly a tearing or twisting of the artery which accompanies the ligamentum teres into the head of the femur, which conditions may leave that portion without sufficient blood-supply to nourish it. Someone has said that 75 per cent of all cases over 60 years of age end fatally, following fracture of the neck of the femur. The recumbent position of the patient favors hypostasis and decubitus, and brings with it other complications which cause death in many instances.

A number of surgeons have reported good results from the use of the extreme abduction position of Whitman.

I have followed closely the method of Murphy in the management of fractures of the neck of the femur. Excepting where there is an impaction, the patient is placed into a Travois abduc-

tion splint with a Buck's extension on the affected limb of from 10 to 15 pounds. This is done on the day of the accident or as soon thereafter as possible, and accomplishes three things: It relieves the pain, prevents absorption due to involuntary muscular contraction, and places the fractured bone ends in the best possible position. In a large percentage of the cases, the interposition of joint capsule takes place and prevents a bony union. Inasmuch as this is such an important weight-bearing joint and with our present day methods of bone operations, we are justified in all instances in which the patient's physical condition warrants in doing an open operation through an incision, which gives you direct access to the neck of the femur. After having pushed aside the large adductor muscles, one can inspect the site of fracture and remove any muscle or portion of the capsule which may have become interposed. Having then placed the fractured ends in approximation, a long screw or nail may be driven through the greater trochanter and through the neck into the head in such a way as completely to fix the fragments. Some operators use the bone transplant driven through an opening made through the neck into the head. I believe this is superfluous and hazardous unless one is reasonably sure that regeneration would not take place by natural processes. Because of the lessened blood-supply and because of the existing conditions which favor absorption of the neck, it is necessary to immobilize in the abducted position considerably longer than in other fractures about the joints.

Fractures at the lower end of the femur are not so common, except when due to direct trauma. I have in mind one such case,—a woman of 35 years, who had a comminuted compound fracture of the lower end of the femur extending into the joint. A bullet had entered the popliteal space, and, fortunately escaping the larger vessels and nerve trunks, had penetrated the shaft of the lower end of the femur. A large hematoma developed which was permitted to drain out through the opening in the skin, and healing occurred at the end of two and a half weeks without infection. The bullet remained lodged in the middle of the fragments. An incision was made over the outer aspect of the lower end of the femur, the bullet removed, and a Parham-Martin band placed around the fragments of bone, none of

which were removed at the time of operation. Healing was by primary union and the patient has a perfectly functioning knee-joint.

I have seen one case of impacted fracture of the upper end of the tibia in which the impaction was so severe as to cause a marked knock-knee deformity. In that instance, the fracture had healed firmly and did not come under our observation until about a year later. In this case it was necessary to do precisely what is done in our late rachitic deformities. A considerable wedge of bone was removed from the inner aspect of the tibia, permitting the shaft to come in a plumb line with the upper end of the articulating surface, thus giving a good result.

Fractures at the ankle-joint, because of the fact that it is a weight-bearing joint, must be handled with the greatest care. The most common of these is Pott's fracture, which is always an *eversion* fracture. The foot is markedly everted, thus tearing the tip of the internal malleolus or severing the ligaments attached to it. Once that has occurred, the outer aspect of the astragalus acts as a wedge, driving the external malleolus outward, putting great tension on the interosseous annular ligaments, and producing an oblique fracture in the fibula just above the ankle-joint. If the impact stops there nothing more occurs. If, however, the patient's weight is carried still further, one will get a backward dislocation of the astragalus on the tibia.

If this particular mechanism is always kept in mind, the surgeon will have very little difficulty in making the proper reduction; in other words, in your reduction follow precisely the same steps as took place during the fracture, but in a reverse order. In the fresh fractures, such a reduction may be made, the foot placed in marked inversion and held so for from two and a half to three and a half weeks, and the result will be a good one. However, if the fracture is an old one and the malleolus has not been brought back and placed in proper position and the fibula has not been brought back to lie in close approximation with the tibia, then the open procedure must be done. The foot will then be drawn well into position, the malleolus nailed or in some way fixed where it belongs and the fibula drawn over in contact with the outer aspect of the astragalus. One must ever keep in mind that in these cases

there is always a definite tendency toward an eversion deformity.

In conclusion, I wish to draw attention to one more fact, namely, that in some cases there occurs a trauma to the joint surface and we must deal then with a traumatic arthritis long after the fracture has completely healed. One of the most disagreeable cases I have ever handled was one of a Colles' fracture which healed beautifully and in splendid position, but when the patient began to use the arm there was great pain in the shoulder-joint. Examination of the shoulder showed no fracture, no swelling and no deformity, but a marked peri arthritis, fixation and excruciating pain on manipulation of the shoulder-joint, which did not subside until three months after the original injury. The impact had carried from the wrist to the shoulder-joint and the cartilage had been sufficiently traumatized to bring about this most distressing condition. In all instances of fractures near the joint, remember that this same thing may occur, but that it can be avoided in most instances by the application of traction, either by means of the Thomas' traction splint or by the more simple and efficient Buck's extension.

DISCUSSION

(Abstract)

Dr. C. R. G. Forrester, Chicago: In resecting injured elbows I had a similar experience while with the British army during the war. The British surgeon would waste no time, but would excise the lower end of the humerus and the upper end of the radius and ulna with the result that the cases would heal, but with a completely flail joint. They could throw the arm around in any position. That made a very trying injury to work with. After considerable experimental work on those cases we found the most practical thing to do was to open up between the radius and the ulna and make a groove on the inner side of both bones and make a plastic flap, as Dr. Kreuscher suggests, pulling the lower end of the humerus through and in that way making a false joint without any rotation. It gave the man no opportunity for rotation of the forearm but he could compensate with shoulder rotation. In those cases we started motion in a week or ten days and the functional results were very satisfactory, considering what we had to deal with.

He agrees with Dr. Kreuscher in regard to doing plastic surgery on the elbow, though he thinks resection of the elbow joint for plastic operation is one of the most difficult.

More study of our muscles and muscle balance would make it easier to reduce our fractures.

Fractures of the humerus high up near the teres minor are not always surgical lesions. You can treat them by carrying the arm in a Jones abduction splint.

The condition of infection in the joints he thinks intensely interesting. More attention to the initial operation on compound fractures would give better results and would save a lot of time. In those infected fractures the doctor referred to the glycerin compound. He asked if he has ever irrigated the joint with a solution consisting of 2 ounces of ether and 2 ounces of iodoform. He found that the volatile ether carried the iodoform to the most remote parts of the structure and gave satisfactory results. He had gone so far as to open a septic case in which the culture showed staphylococcus aureus-albus infection, irrigated with plain sterile water and filled the joint with 4 ounces of ether and 3 ounces of iodoform. That case closed up by first intention without any further disturbance. In respect to compound fractures if you take more time and clean away all the traumatized tissue and then use the ether and iodoform mixture, you will find that the element of infection will be reduced to less than 10 per cent.

You will find when you examine compound fractures at a later date that they almost all show a typical arthritis. He asked Dr. Kreuscher if in the shoulder cases where he suspects ankylosis will occur he has resorted to the abduction position. In fractures of the head of the femur with penetration into the abdominal cavity, of which he had two cases which he could not reduce, it was necessary to make an incision along the anterior spine of the ilium and go into the abdomen extraperitoneally in order to get a very close view of the dislocation and fracture. You will find in those cases if you make an incision at this point and use the traction that doctor refers to, the results will be excellent.

Dr. J. R. Harger, Chicago, laid stress on peri-articular inflammation. Dr. Kreuscher probably knows that subject better than most of us. In the last five years he had seen about fifteen or eighteen cases of injury to the shoulder joint with simple fracture or without fracture and these patients developed apparently around the shoulder joint a peri-articular inflammation or peri-arthritis, that leads to fibrosis, immobilization or partial ankylosis and eventually to loss of function of the shoulder. He suggested in case of injury, especially in bone injury or in sprains about the joint, immediately looking for and trying to eliminate some of these miserable focal infections, such as abscessed teeth, because he is firmly convinced that if some of these patients had had this done they would not suffer from these infections.

He believes in all fractures and especially those involving joints the after-treatment is most important. In Colles' fracture the most important

thing is the after-treatment, the institution of early passive motion and massage. If not instituted the end-results will not be good.

Dr. C. C. O'Byrne, Chicago, discussed an observation of a few years ago when a patient, 60 years old, came into his clinic with a dislocation of the hip and an ankylosis of the shoulder joint. It had occurred six months before when the patient was thrown from a wagon. She was very thin. Putting her on the table you could see the dislocation of the hip. The head of the femur had lain on the dorsum of the ilium for six months and she had no use of the limb. She had been in bed practically all the time. There had been practically no change about the head of the bone or in the acetabulum, so that he reduced the dislocation and in one week she was able to use the limb. The interesting point is that in the six months there had been no change. This occurred some fifteen years ago and she has had no trouble since.

Dr. Philip H. Kreuscher, Chicago (closing): I would say in answer to Dr. Forrester's questions that I have not tried the ether method. I shall be very glad to use the iodoform and ether in my next suitable case.

GOD GIVE US MEN

MATERNITY BILL*

THOMAS U. SISSON

Congressman,

WINONA, MISSISSIPPI

The House in Committee of the Whole House on the state of the Union had under consideration the bill (S. 1039) for the public protection of maternity and infancy and providing a method of cooperation between the Government of the United States and the several States.

Mr. Sisson. Mr. Chairman and gentlemen of the committee, most Members of Congress are physically courageous men. They are not physical cowards. If you were to say to the average Member of Congress that he is a liar or that he is a thief he would strike you. I wish to God that all of the Members were as courageous politically as they are physically. Then the people would have more respect for this magnificent body of men. Men who would not hesitate for one moment to charge a booming battery will run like a Molly Cottontail from a political issue. Mr. Chairman, I have had my political grave dug for me many times since I have been in Congress on account of certain votes that I have cast. Some one interested in some measure will tell you if you do not vote for it

*Address before the House of Representatives, Nov. 19, 1921.

you will be defeated. But I tell you that if a man who casts an honest, conscientious vote and feels away down in his heart that he is right, goes back and looks the people of his district squarely in the eye and says to them that he could not vote otherwise without stultifying his manhood and his intellectual integrity, he will always receive a favorable response from the people, because the American people love a brave, honest man. (Applause.) I expect this bill to pass by a large majority because the vote will be recorded. If the vote could be by secret ballot and Members voted their real sentiments there would not be as many votes for this bill as there will be against it. I doubt if there will be 50 of us who will vote against the bill as it is; but if the vote could be in secret there would not be 50 votes for it. The gentleman from New York (Mr. London) of course will vote for it because it is purely socialistic.

Now, of course, in the time given me I can not discuss every feature of this bill, but I do want to call your attention at the outset to a fact, and in doing so I hope you will kindly excuse me when I refer to the Constitution. I know that in mentioning this instrument to this body I am venturing upon most dangerous ground. While we take a solemn oath here to support the Constitution of the United States, without any qualification or mental reservation whatever, most Members go down and take the oath and forget about it and say, "If it is unconstitutional, the Supreme Court will say so." They thus "pass the buck," to use the slang of the street. Of course, that is not the oath we take. We have no right to ignore the Constitution in this way. We should exercise that courage that the fathers of the Republic expected and hoped we would exercise and thus insure our liberty and the perpetuity of our Government. I do not believe that this bill is constitutional, nor do I feel that as to the legislative provision in it there is a man on either side of this aisle who can convince anyone it is constitutional.

Mr. Clouse. Will the gentleman yield?

Mr. Sisson. Yes; briefly, please.

Mr. Clouse. Under section 8 of Article I of the Constitution of the United States, does not the gentleman think the Congress would have power to make such an appropriation, in

that it is authorized to make appropriations for the defense and general welfare of the United States?

Mr. Sisson. I expected my friend to take refuge behind that clause, for that is the refuge of all who would evade the real purpose of the Constitution and to justify every piece of bad legislation; but the Supreme Court of the United States every time it has had a whack at it said that you can not make this clause a grant of power, because if you did you have eliminated the entire Constitution.

Mr. Clouse. Will the gentleman yield for one further question? Has not the Supreme Court construed appropriations similar to this in the matter of the boll-weevil situation in the gentleman's section of the United States? (Applause.)

Mr. Sisson. No; the Supreme Court has not decided that the boll-weevil appropriation is constitutional. If the gentleman wants to go into that discussion, I can not do it here, because my time is too limited; but I do not believe many things are constitutional in the initiation of legislation, but if you had the right to make appropriations under what is termed the general welfare, then any legislation would be constitutional if the individual Member of Congress should say, "Well, I think it is for the general welfare." It does not mean thereby that Congress can make legislation for the general welfare unless—one minute, now—unless it has been so expressly provided in the Constitution.

Mr. Clouse. Will the gentleman yield for one further question?

Mr. Sisson. I have not the time, I have only 30 minutes. If I had the time there is not a man on this floor I would not yield to, but I have not the time, and there are many things I want to say. While I am on the question let me say to you that the preamble of the Constitution uses exactly the same words "General welfare," and in the use of that language the court has always said we have got to have the same definition of the same language in every clause wherever it occurs in the Constitution. It can not mean one thing in one place and another thing in another. In the preamble of the Constitution the term "General welfare" is used and is simply a statement of purposes and why the following Constitution was made. It is then a term

expressing a grant of power. It can not be contended that the general-welfare clause then is part of the powers of the Constitution. If so, there is not one of you, be he lawyer or layman, but knows the very moment a court would put that construction upon it then you have eliminated and destroyed the Constitution entirely, because whatever you think is for the general welfare would then be constitutional. (Applause.) Therefore, you would have no Constitution. So I do not believe any lawyer in this House, from whatever section he comes or what his politics, believes that that construction can be placed upon it. Now, I say this much about the constitutionality of this bill and for the justification of my position I could rest it there. No good man or woman would say I should vote for the bill if I so decided. Surely no man would say in this House that when he took this oath he took it with a reservation. Surely no man here will say that in taking that oath he took it with the understanding that the general-welfare clause being part of the Constitution he can vote for anything he pleases and put it under that clause.

Mr. Barkley. If the gentleman will yield, two or three years ago my good friend from Mississippi was very much in favor of an appropriation of \$50,000 by the Congress for rural sanitation, and made one of the best constitutional arguments that I ever heard in favor of it. What is the distinction between that and the proposal we now have under consideration?

Mr. Sisson. As a matter of fact, that provision and the provision in relation to good roads—all of those things—originated within the departments, and in this case that the gentleman mentioned it originated in the War Department and was justified originally to keep healthy the soldier. I will say to the gentleman I am not so absolutely certain that all that we do along this line is constitutional, but I do not believe that because one burglar goes and blows a safe open that that is a good reason for everybody to go into the burglary business. (Applause.) Nor do I think that because one man makes a mistake and does a wrong once it justifies everybody else doing wrong. (Applause.) But the original proposition was hung onto that war clause because it would make the soldier healthy; and on the theory you had to make all these camp sites

healthy much of that money was spent around camp sites; and I think there was some little reason for hanging that upon it, however slender that thread may be.

Mr. Greene of Vermont. As Hosea Bigelow said, "Civilization does get forr'd sometimes on a powder cart."

Mr. Sisson. Absolutely. Then I was also amazed at the argument made when men cry aloud, Why do not you appropriate money to take care of your hogs and your cattle? Are you better to them than to your children? Yes; and my children are neither hogs nor cattle, nor do I want them to be dealt with accordingly. (Applause.) I have hogs which I want to use for the food of these children of mine. I have some land, and every acre, I hope, will be productive for the benefit of my children.

This is a great Government; but hogs and cattle have no civil rights. They put them in the pen and deprive them of their liberty, and we would not do that with a child. What a specious argument that is to be made here to justify a proposition of this kind. I have heard it so many times that I am sick of it. That is not even good demagoguery. It is not only illogical but is not even good nonsense.

Now, gentlemen, I want to discuss briefly some of the objections that I have to this bill, although the first reason thoroughly justifies my voting against it, whether it justifies anybody else or not, because I think it is unconstitutional.

This bill is simply for a preliminary organization. It is simply the camel getting his nose under the tent. When the Children's Bureau was created \$7,500 was given to it by the executive department out of the executive funds.

The next appropriation bill carried \$25,000, and then there was a deficiency of \$625, I think it was, making \$25,625, or thereabouts. The next appropriation was about \$50,000. They were asking for more. The last item in reference to this matter was \$600,000, which they asked for, and the committee gave them two hundred and seventeen thousand and odd dollars. Those of you who recollect my opposition to that item at first will recall that I stated then that the original \$7,500, paying one salary for the head of the bureau, one for a clerk, and one for a stenographer, would grow rapidly, and it would

not be long before it would be more than half a million dollars.

Now, in the last nine years—I think it is nine; not less than nine—from \$7,500 it has grown to over \$271,000. Now, that is the Children's Bureau. This is another dose of the Children's Bureau. Mark you, there is not one dollar of this that reaches a single child in the United States or a penny that reaches a mother in the United States. It goes entirely, so far as the Federal appropriation is concerned, to the organization of this bureau in addition to the Children's Bureau. What does it mean? Not one single dollar will go to the mother or to the child. It means now that during the life of this bill there will be a lobby of Federal officers around the legislatures of every State in the Union lobbying—lobbying for what? For the State legislature to appropriate money for this purpose. And so you have going out from Washington one of the most dangerous and pernicious lobbies ever originated in the Nation. And to show you, as the good lady from Oklahoma said in her speech, what was in the minds of these people who are now behind this bill, the only thing you have got to do is to go and look at the provisions in the bills that have died.

You will find in these bills that they wanted to go, without the consent of the parent or guardian, into the homes, into the homes of all the people of the United States who had children. Congress eliminated that. They are still lobbying for this bill. You know what was said about the camel getting his nose under the tent. The Arab from experience knows that as soon as the camel can find a hole large enough to get his nose under the tent he will get his whole body under in time. The best place to strangle this thing is now, just at this moment. Let it die here. Because when you shall have organized this institution, and when there shall emanate from Washington all of this influence operating on the State legislatures for the purpose of securing appropriations in order that these Federal employees may have something to do the State must appropriate the money and organize an expensive bureau. When that is done the State, now overburdened with taxes, will be called upon to tax itself to pay for this work. This is an effort on the part of the Federal Government to send out emissaries to State legislatures to lobby through

bills in order that this institution created in this bill may justify its existence. Because the only justification for this bill now is to organize this work in the States.

Now, I do not know just where it will end, but is there a man here who believes that this limitation in this bill is going to satisfy those people who are here lobbying?

By the way, I intended to mention that. I have been lobbied but twice since I have been in Congress. All the liquor interests and antiliquor interests, all the interests of that kind that have been concerned, all the so-called big interests in this country have never lobbied me in my life. I have been lobbied but twice, and one time was to vote for woman suffrage, and the other was to vote for this bill. I do not know; there may be a lobby against it. But if a man is trying to put fire in the house, the other man has a right to throw a bucket of water on it.

I think that there is no demand from the people, so far as I know, except the demand originated by the parties who expect to draw these salaries under this bill, and there has been no agitation of this subject outside of them. On the contrary, if you get out among the good mothers, I mean real mothers, mothers who have babies—I am talking about mothers who have a household to look after, who love their husbands; I am talking about real mothers—you will not find them here endeavoring to control Congressmen's vote on this question. As certain as God's sun shines in the universe and gives life and light to us all, just so certain the home presided over by a good mother is life in society. It is the sun, it is the life of this Republic. I am unwilling to have it invaded by the Federal Government or by any of its agents; I am unwilling to have the State legislatures continuously lobbied for money that is to be paid out of the Federal Treasury for very doubtful purposes.

Listen! Another vicious thing in this bill is this, a certain per cent is to be spent in salaries, and in order that they may get their salaries doubled you have got to double the appropriation. In other words, when the appropriation is \$1,000,000, they get \$50,000; when the appropriation is \$2,000,000, they get \$100,000, and so on. And so the lobby must go on. And another thing that justifies its existence for five years is that they have got to lobby faster in order to

make this thing good in the States, or else the Government may wake up and say that it will not continue the appropriation any longer.

Whatever my idea may have been about women being in Congress, whatever my views have been on the subject in the past, they have never been shaken until this morning, when the good woman from Oklahoma, with that fine common sense, with a fine mother sense, with the fine mother instinct, rose up here in opposition to this bill. And I then thought of the prayer that was prayed on one occasion by Napoleon Bonaparte just before the Battle of Waterloo, as he was marching up and down the council chamber. Knowing what he had to contend with, Napoleon, in that abstracted manner of his, marched up and down the council chamber and threw up his hands and cried aloud, "My God, how scarce are men. God, give us men."

In other words, what Napoleon needed then was men; strong men, men of courage, men of principle, men of convictions, and men of capacity to do the mighty work that he had to do. Knowing, as he did, his need, he was praying for men. And when I looked around this morning and saw that good woman appearing here, pleading for that which is just and right, exercising good sense and mother sense—I mean the old pioneer mother sense, the sense of that kind of a mother that my friend Greene of Vermont talked about yesterday in his magnificent speech—the sense of the home mother, the mother sense that made Washington and Clay and Calhoun and Lee and Grant and a host of others what they were, I said in my heart, "God bless the old-fashioned mother." Do you not love them? Go out to the spots where they are buried, and there you feel like shedding real tears not only for the mother that brought you into being but for the mothers who made our Republic what it is. Yes; it is mothers of that kind that come here and tell you that they do not want this bill enacted.

I was about to say that if you get in Congress women who are so much better Congressmen than many of us men, if you get women like this good woman Representative that we have here, a woman of rare common sense, I think perhaps two-thirds of us men ought to be turned out and be replaced by women of well-balanced minds,

who can not be swept off their feet by propaganda and lobbying.

Now, somebody may ask you what objection you have against the bill. I always answer questions like that by asking, "Will you please tell me what this bill does? And then they will stand like sheep before the shearers—dumb. Why this bill does not do anything except get ready for an organization, get ready for a campaign in the States, to lobby all the legislatures in this country, to get the States to connect them up with the mothers and the children.

This Republic has done well heretofore. I believe that there is nothing that raises a child so well as a good home. Well, they say there are some homes that are not what they ought to be. Well, as bad as such homes may be, they are better than any bunch of political men and women and the gang around it. (Applause.) No; the thing that made America great was the fact that we had confidence in the citizen. It was urged as a reason why this Government would fail that the people were incapable of thinking and making a government for themselves; that there had to be a superinduced force brought to bear upon them. I am going to continue to believe, and I think I am warranted in doing it, that that government is the best which leaves the citizen where he takes care of himself and where in the community we appropriate money out of our own treasury for the services that we need to have performed. The weakest man on earth is the man who has had crutches under him all his life. I do not believe that men are made strong in that way. I believe they are made strong by wrestling with difficulties. The young man who is made strong by grappling with difficulties, who does it when he is a young man, will succeed in life by reason of the strength he has acquired. The distinguished ex-Speaker of the House, the gentleman from Illinois (Mr. Cannon), in his boyhood and youth had to contend with difficulties, and those struggles with adversity helped to make him the strong man that he is. I do not believe that a man is strong where he is born with a silver spoon in his mouth except in rare cases. The boy that is strong in shaping the destiny of the Nation now is the boy who was born in poverty and who struggled against adversity, because those very struggles

made him strong and powerful; those struggles made him great and influential.

That is the kind of men who in the last analysis have directed the destinies of this Republic. This Republic is safe and safe only so long as we preserve the local self-governments and home influences, and so long as we let those alone shape the church, the schoolhouses, and the family life, and the life of the neighborhood. That is what makes all people great, and upon that bedrock was founded this Government. The idea then was that the States should deal with the family, that the States should deal with the individual, with the school, and that outside of that the Federal Government, removed from local influences, should deal only with the States with reference to their concerns with each other and with foreign nations. The idea was that the Federal Government was to protect all of the States, and for that purpose it was given an Army. The purpose of the Federal Government was not to destroy the States, but to preserve the States in all their rights. The States erected this Federal Government in order that they might be preserved in their rights.

I am not uneasy about the State governments being destroyed by armies; I have no uneasiness about that. But what I am uneasy about is that you are going to bribe from the States all the rights they have got by the illegitimate use of Federal money. (Applause.)

Mr. Crisp. Mr. Chairman, will the gentleman yield there for a question?

Mr. Sisson. I do.

Mr. Crisp. Of course, I know the gentleman has given this matter very mature study, and that he is very sincere in the statements he makes. Does the gentleman contend that under this bill any agent, either State or Federal, appointed under it would have the right to go into a home where the head of that house or the woman of the house objected to it?

Mr. Sisson. No; I will tell my good friend from Georgia that the bill specifically provides that that shall not be done. But if the gentleman will study the bills that preceded this he will find that those other bills did not contain that prohibition, and that was one of the reasons why those bills could not be gotten out of committee. Of course, I do not contend that such permission to invade the home is contained in

this bill. If it were, I am sure the gentleman would not vote for it.

Mr. London: Mr. Chairman, will the gentleman yield?

Mr. Sisson. Yes.

Mr. London. The law which created the Children's Bureau contained a prohibition against entering the home without the consent of the head of that house or of the mother or father.

Mr. Sisson. Yes. I happened to be here when that bill was enacted.

Mr. London. That is in it.

Mr. Sisson. I know that, but still you could have in that bureau all these agencies here.

Another thing. I am not so sure that these propagandists will not go to the States and urge them to pass laws to let them get in, and that while the Federal Government has no right to butt in, they will say to the States, "You ought to have the right," and they will say, "You go ahead and get that right, and we will go and look at these mothers when they are enceinte. We will be there when the baby is born. I do not know where it will end.

Mr. Layton. Will the gentleman yield for a question?

Mr. Sisson. Yes.

Mr. Layton. Nothing has been developed yet, either in any speech or in writing, to show that the propagandists for this measure have ever abandoned their ultimate purpose.

Mr. Sisson. I think that is true also. You will find that this bill is so drawn that if the States shall so warrant you may invade the homes of the people, and the people whose homes are going to be invaded are the poor and helpless, not the strong and rich and powerful; and the excuse will be that they are not needed there.

Mr. Crisp. Does not this bill expressly state that if any State provides that the employees created under this act can go into a home over the objection of the head of the family that State shall not participate in any Federal fund?

Mr. Sisson. I think that is like impeachment. I think it is like one of the ghosts. I do not think anybody is afraid of that.

In conclusion, Mr. Chairman, I desire to say that this is no time for such legislation as this, even if it were good legislation, for our States are now overtaxed. The people everywhere are

overburdened with taxes. This bill will in a few years add millions upon millions of taxes upon our people if it succeeds. The burden may get so great that the people will go to any excess to throw it off. I beg you to think of our overburdened taxpayers and have some pity upon them. Do not pass this bill.

The Chairman. The time of the gentleman from Mississippi has expired.

Mr. Sisson. I am sorry, Mr. Chairman.

ACTINOMYCOSIS: DIAGNOSIS AND TREATMENT*

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Actinomycosis occurs in the head and neck region in over sixty per cent of the cases. It occurs in the appendix in approximately fifteen per cent of the cases. One should, therefore, consider actinomycosis as a diagnostic possibility when examining tumors of the head and neck or persistent sinuses of the abdomen, especially when post-operative.

In the region occupied by the middle western and northwestern states it is important that actinomycosis as a pathological entity be kept in mind. In a recent study Sanford and Magath found that of 119 cases collected from the literature forty-one (35%) of the patients resided in Illinois, Iowa, Wisconsin, North Dakota, South Dakota, and Minnesota. Illinois and Iowa had the largest number, twenty-eight (23.5%). They also report ninety-six cases examined at the Mayo Clinic of which number forty-two (45%) of the patients lived in the states named. Eleven cases were from Iowa and South Dakota each making twenty-two (22%) of this series from these two states. Thus in a total of 215 cases thirty-nine and four-tenths per cent (39.4%) were from the states indicated. Twenty (9%) of these patients were from Iowa.

A large number of cases of actinomycosis will not be seen by an individual physician. Experience with this disease in clinical and diagnostic centers shows that in most cases the correct diagnosis has been primarily overlooked. This is often due to the protean characteristics exhibited by these lesions in different parts of the body, and

in fact in the same region in different individuals, and in different stages of development of the lesions. It may also be due to lack of clinical experience with actinomycotic lesions, but is often due to failure to keep the disease with its often simple method of determination in mind in the differential diagnosis.

Many cases are difficult to diagnose definitely previous to suppuration or sinus formation. Even then if secondary infection is marked or the disease has been of long duration with contraction and induration of the tissues it may be impossible to come to a definite conclusion by the use of smears, cultural methods, or biopsy. The task is rendered less difficult, however, by the fact that the condition if acute will likely soon soften with suppuration and abscess formation. If chronic it is a slowly spreading process and if untreated a persistently recurring one. At some time it will exhibit an area or areas of softening and abscess formation that will make diagnosis easy. Radiation hastens this process and is occasionally the means of definite determination of the condition.

Occurrence. Actinomycosis occurs commonly in cattle where it is well known as the lesion called "lumpy jaw" and is frequent among hogs. Its incidence among these animals is highest also in the middle western and northwestern states as shown in data presented by Sanford and Magath taken from the Federal Meat Inspection Report for 1920. Of the cattle killed in Chicago, Omaha, and South St. Paul approximately 2% in the first two cities and 4% in South St. Paul were retained for actinomycosis, while in Los Angeles, California, but 0.3%, in New Orleans, Louisiana, 0.9% and in New York, N. Y., 0.1% were retained.

These facts taken with the showing that in human actinomycosis 80 per cent of the cases occur in males and 60 per cent of the patients are farmers support the evidence that there is either direct transference from animals to man or indirect inoculation by means of some material as grasses or grains that have been contaminated by animals. A large enough number of cases occur, however, in persons in whom it is difficult to prove or even imagine infection from these sources to cast doubt on this supposition. The issue is further clouded by the statement of Colebrook² that the fungus found on grasses and

*Read before the Tri-State District Medical Society, Milwaukee, Wis., Nov. 14, 1921.

grains is aerobic and differs from the anaerobic organism *Actinomyces bovis*, the causative organism of actinomycosis in animals and man. He suggests that the organism is a common inhabitant of the alimentary tract. Furthermore, Lord has demonstrated the presence of this fungus in carious teeth and tonsillar crypts of patients with no clinical evidence of actinomycosis.

Reports of cases show that these lesions occur in almost every part of the human organism. Fourteen of ninety-six cases observed at the Mayo Clinic occurred in the appendix and sixty-one occurred in the head and neck region. New and Figi have reported three cases of involvement of the tongue and collected thirty-five cases from the literature. The central nervous system has been found involved, seven cases being found by Moersch at the Mayo Clinic in ninety-six cases studied.

Diagnosis. Definite clinical diagnosis of actinomycosis is difficult in many cases, especially if seen early or very late. The classical text-book picture of brawny induration with bluish discoloration and multiple sinuses will be seldom seen or be impossible to differentiate from old tuberculous lesions. Early cases are difficult to distinguish from tuberculous glands, Hodgkin's disease, sarcoma, lympho-sarcoma, or simple phlegmons secondary to oral infections following operative procedure.

Practically the diagnosis is made very simply by finding little yellow bodies in the purulent discharge from an incised abscess or open sinus, if one remembers to look for them. As is usual in diagnosis generally, there is where failure usually lies.

To illustrate this point mention may be made of a patient seen at the Mayo Clinic who had had an appendectomy three or four years previously elsewhere, and several subsequent abdominal and two lumbar drainage operations. He presented open draining sinuses in the inguinal, abdominal, and lumbar regions. He was examined by a number of physicians, had x-ray examinations of the intestinal tract and surrounding osseous structures, besides serological investigations, blood counts, and urine examinations, without arrival at a definite diagnosis. On suggestion of the surgical consultant, Dr. Sistrunk, search was made and the characteristic yellow bodies found in the pus from the discharging sinuses.

Old sinuses of the head and neck region with

scanty discharge will seldom disclose these bodies but Jensen and Schery have demonstrated the *Actinomyces* in the scrapings from the sinuses. Newly formed areas of softening however small should be sought. Here simple incision will usually bring forth pus containing the yellow granules. These granules should always be watched for in an acute lesion that has softened where primary incision is made for drainage. The effort will be rewarded if it is actinomycosis.

If the lesion is acute with swelling, redness, and systemic disturbance diagnosis should be reserved and treatment should be as for early phlegmon with hot moist applications. After localization and softening the granules will be found in the discharging pus following incision.

In slowly developing primary cases and in chronic lesions with induration and sinus formation the use of x-ray or radium will usually produce areas of softening. Incision and drainage of these areas and finding the yellow granules will establish the diagnosis.

The granules may be caught on the end of a small instrument and placed on a slide. A few drops of water (tap water will do) are placed over and around it; then it is rolled around in the water to wash away the pus. Now by moving it to another area of the slide it is isolated and may be crushed under a cover glass. Examination under the microscope will show a characteristic daisy formation. If the yellow granules are present in the purulent discharge they are unmistakable. If they are absent one is always in doubt and will pick out particles of inspissated pus or other debris, only to find that they disintegrate in the water on the slide or show only pus and epithelial cells under the microscope.

Pathologic examination of tissue prepared from a newly formed nodule excised near the margin of an advancing lesion may show the characteristic granules. New and Figi proved the diagnosis in this way in small primary nodules excised from the tongue. The mycelia are gram-positive and acid fast.

Attempts have been made by Colebrook to establish the diagnosis of actinomycosis through the agglutination properties of the patient's blood serum, and Sanford and Magath are undertaking work to determine whether cultures of *actinomyces bovis* may be used as antigens to demonstrate complement fixing bodies in infected

individuals, but both procedures are in the experimental stage.

Treatment. In the treatment of actinomycosis numerous drugs have been advocated, for example copper salts internally and externally by Bevan and Ramstead, and methylene blue internally and by injection into the tissues and sinuses with drainage of the abscesses and x-ray treatments by Jensen and Schery. Injection of autogenous and polyvalent stock vaccines was used recently by Colebrook, being accompanied by surgical drainage of the abscesses. Colebrook concluded that the surgical drainage in his treatment was a big factor in the recovery of his patients and Jensen and Schery were convinced that surgical drainage and x-ray treatments had more effect in clearing up their patient's lesion than the medication with methylene blue.

Heyerdahl has reported several cases treated successfully with radium. In all of them abscesses formed and were either incised or ruptured spontaneously. A physician reported to me a cure without recurrence by simple incision of the abscess and daily swabbing of the cavity with turpentine.

Stokes in a personal communication states that he has used arsphenamin with surprisingly good results in two patients with abdominal lesions. In other systemic febrile cases he feels that little good, if not actual harm was done. He is of the opinion that if the patient is afebrile and his resistance is high there is possibility of benefit from the arsphenamin in systemic cases, but does not consider it a substitute for intensive radiotherapy and administration of iodides.

Incision of the abscess, swabbing the cavity with iodine and packing with iodoform gauze followed by the application of radium, as practised by New, gives good results. This treatment is accompanied by the oral administration of a saturated solution of potassium iodide, beginning with thirty grains daily and carrying it up in increasing doses to 200 grains daily. It is then carried along to the patient's tolerance with periods of rest for a week or two. The drug is stopped if intolerance is shown by skin rashes or gastro-intestinal disturbances. Stokes has given this drug in 500 to 1,000 grain doses daily in refractory neuro-syphilis but believes such large dosage is more detrimental than helpful in actinomycosis.

After opening the abscess the finger should be

introduced into the cavity to break down accessory pockets. The iodoform pack should be removed after two or three days and be replaced daily following generous swabbing of the cavity with iodine. Formation of granulation tissue and tissue contraction will gradually obliterate the cavity while the pack will insure thorough drainage and will keep the wound open externally. Radium may be used immediately, or if there is marked inflammatory reaction, after a week or ten days. Its application may be repeated after six weeks to three months if necessary.

One should remember and the patient should be told in a chronic case that the condition is prone to spread and recur for a time, that subsequent abscesses are likely to form, necessitating incision, and that treatment will likely be prolonged. An acute case with a definitely localized abscess will usually heal primarily without recurrence after this treatment.

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OSTEOPATHY

Charles S. Meachem, of the Chicago office of the Lovell Manufacturing Company furnishes me with the following digest of the African view of osteopathy:

Rastus—"Feller, why for yo'-all dabblin' wid dis here oysteropathy?"

Sambo—"Cause Ah done read in a book dis oysteropathy done treat ob de manipulatin' ob bones, and de onliest partiality Ah's got is humerin' de gallopin' dominoes to pass in review.

With His Hands

Jones—That new masseur gave me a wonderful massage today.

Brown—He's a deaf mute, you know, and he was rehearsing a speech he is going to make tonight before his society.

THE USE OF THE FLUOROSCOPE FOR REDUCING FRACTURES

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The reduction of fractures by manipulation has received too little attention. This may be due to the securing of moderately good clinical results in the majority of cases so that the possibilities, especially of getting very good or nearly perfect alignment with the use of the fluoroscope, have been neglected.

Though the fluoroscope has been at the service of medical men for a number of years, there seems to be slight realization of its value in reducing fractured bones; in fact, I have failed to hear of anyone who uses it as a matter of routine, or to find in the literature any articles emphasizing this use of it. That the obtaining of x-ray pictures, where possible, in all fracture cases is a wise procedure is admitted by all. In some cases the fluoroscope has been used instead of plates in order to observe from time to time the progress of fractures, especially in those of the femur.

My attention was first directed to the fluoroscope for facilitating the reduction of fractures in a few difficult cases. Experience in removing needles and foreign bodies from the tissues led me to expect similar satisfactory results in reducing fractures.

The difficulty of finding a needle in the tissues by dissection may be compared to that of reducing some fracture cases.

The use of the fluoroscope is indicated in all types of fractures in which there is any deformity or where it would be an advantage to get better alignment. There are cases where for some reason it might be better to have a slight deformity rather than disturb the fractured ends, as, for example, certain cases of impaction or cases in which it might be difficult to maintain the fragments in position after a perfect alignment.

In the latter case a first aid splint well applied with a resulting slight deformity might hold the fragments better than any subsequently applied splint.

This possibility should lead one to discriminate about interfering with a good result in loca-

tions where it might be difficult to maintain a correct alignment even after obtaining it under the fluoroscope.

This does not lessen the value of the fluoroscope in setting fractures. It gives us, in addition, an opportunity of resetting many poorly set fractures where formerly we would have decided to leave them alone fearing to get no better or even a poorer result.

In fractures, such as of the femur it is generally impossible to maintain the reduction after obtaining it under the fluoroscope. Improved methods of maintaining alignment may increase the value of immediate reduction in these cases. Daily or repeated observations are of value in these cases with traction and have been mentioned by other writers. However, this is not the type of fracture reduction that is meant in this paper.

In some fractures and under certain conditions the transportation of the case to the x-ray might entail danger and trauma or be impossible, but the majority of fractures can be transported short distances easily. Recognition of the many uses of the fluoroscope should encourage every community to support a good x-ray laboratory.

Technic of reducing fractures under observation of the fluoroscope.

The fractured part should be immobilized immediately wherever it has occurred. The parts should be splinted with as little disturbance as possible although gross correction of deformity is usually advisable. First aid dressings should be applied immediately to any wound.

If the ends are impacted great care should be used in immobilization in order not to disturb them.

The patient should be transported carefully to the x-ray laboratory. Roentgenograms in two planes are first made for detailed inspection of the bones and also for record. If no plates are taken, but reliance is placed upon the fluoroscope for diagnosis, one might miss fractures other than the one with the deformity and they are frequently multiple.

Following development of the plates, which takes but a few minutes, they are studied in detail.

The two views will usually determine the amount of deformity and give the relations of the bony parts, which is important in planning the reduction. Stereoscopic plates are of especial

value where views at right angles cannot be well obtained.

The patient is now placed upon the fluoroscopic table or a table at one side, so that the fractured part may be placed under the fluoroscope.

In the majority of the badly deformed fractures, an anesthetic is necessary.

In children ether is the anesthetic used. Precautions against ignition of ether vapor by electric sparks from the high tension current should be taken. Ventilation should be good, and poor insulation and loose connections avoided. In adults nitrous oxide with oxygen is often satisfactory. Occasionally local anesthesia may be used. Morphine alone may be sufficient in some cases.

Plaster of paris or some other form of permanent splint and bandages are now made ready.

The fractured parts are now ready to be reduced and under actual observation this is accomplished. The best results possible under the circumstances are obtained. The parts are examined in all planes if possible in order to determine the correctness of reduction.

The permanent dressings are now applied with the help of an assistant, care being taken not to disturb the alignment.

If plaster of paris is used the parts are observed under the fluoroscope while the cast is drying in order that any slight angulation may be corrected.

This is easily overcome by manipulation. The parts should be well padded with cotton and bandages so that the cast will not produce pressure necrosis or obstruction to the circulation. It is important to hold the parts in the position of flexion or extension desired before applying the bandages and to take care not to change this relation after they are partially or entirely applied, since constriction of the cast may occur at some point.

Unquestionably a special fluoroscopic head-piece, as designed recently, for removing foreign bodies would be of value, though not essential in the reduction of fractures or dislocations.

As soon as the splints are firm, roentgenograms are again taken in two planes for detailed examination and record.

The hands of the surgeon may be protected by lead gloves or perhaps sufficiently for occasional work by leather or rubber gloves. A lead apron should also be worn.

It is surprising and gratifying to note how short a time is actually necessary in order to reduce even difficult fractures.

A few illustrative cases:

Case 1 illustrates the group of birth fractures in which it is difficult to get alignment and later to retain it. L. W., a birth fracture of the middle of the right humerus, with overriding.

The first reduction without the fluoroscope was not entirely satisfactory. It was corrected under the fluoroscope.

Reported in the Surgical Clinics of Chicago.

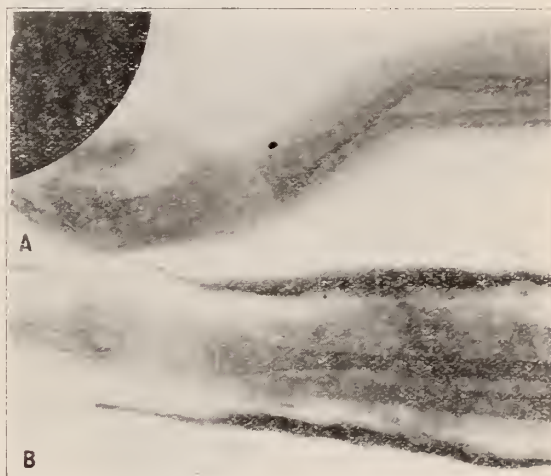


Fig. 1.—A. Deformity before reduction. (Case 2).

B. After primary reduction under the fluoroscope. Perfect alignments may be instantly recognized and the parts immobilized.

Case 2. B. B., 6 years old. Fractures of the radius and ulna with marked deformity (Fig. 1 A).

This type of fracture is often difficult to retain in position after being reduced.

Reduced under the fluoroscope and plaster cast applied.

Alignment is shown by Fig. 1 B.

Case 3. J. R., adult, male. A badly comminuted T-fracture of the lower end of the radius into the joint and fracture of the styloid process of the ulna.

Reduced (using gas) under the fluoroscope. A plaster cast was used to retain the position. The result was excellent.

Case 4. C. B., girl, aged 8 years.

Supracondylar fracture of the humerus with marked displacement.

Attempted reduction and application of splint by another doctor shows a marked deformity still present (Fig. 2 A).

Reduced under the fluoroscope and held in acute flexion by means of adhesive and a bandage. The result is seen in Fig. 2 B.

Case 5. W. W., boy, aged 14 years. Fracture dislocation of the lower epiphysis of the tibia with

fracture of the fibula, resembling a Pott's fracture deformity.

Deformity corrected under the fluoroscope and leg put up in a plaster cast. The result was excellent.

Case 6. Mrs. C. J. H., aged 68 years.

Colles' type of fracture of the lower end of left radius with marked deformity, dislocation of the left elbow, and fracture of the epicondyle of the left humerus. The dislocation of the elbow was

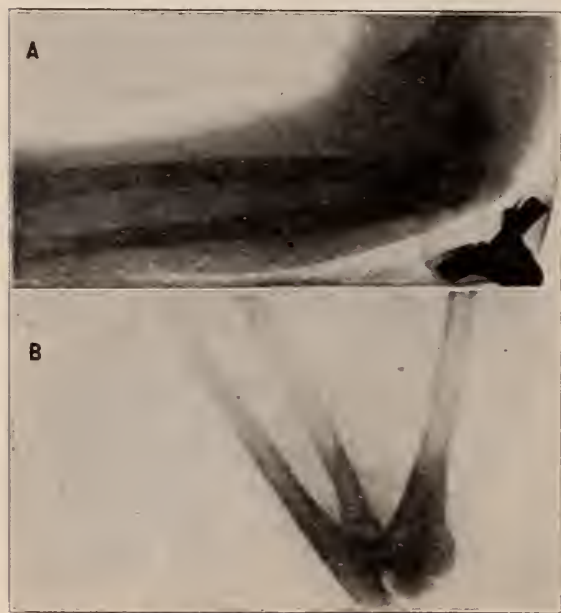


Fig. 2.—A. Attempted reduction by another doctor, without fluoroscopic aid.

B. Result following resetting with the aid of the fluoroscope. (Case 4).

first reduced under the fluoroscope and then the fracture of the radius and humerus. Padded splints were applied and the arm placed in a triangular sling. The results were unusually good.

ADVANTAGES OF THE FLUOROSCOPE

1. Anatomical approximation of the fragments may be most perfectly obtained.

2. Fewer manipulations are necessary since as soon as the parts are in good approximation it is seen and the parts are immobilized.

3. Less trauma results to the fractured ends and to the soft parts due to the constant observation and lessened manipulation.

4. There is an avoidance of prolonged or increased hemorrhage into the tissues due to the minimum of trauma, observation of the ends, and early immobilization.

5. Complications such as injury to nerves and large blood-vessels due to putting the parts up or splinting without reduction may be avoided in dislocations and especially in fractures around

joints. The danger of myositis ossificans is lessened.

6. All angles of observation may usually be obtained with the fluoroscope. In plates it may be difficult or even impossible to get them at right angles.

7. The neighboring parts are, at the same time, put in the best anatomical position for repair. This may be illustrated by Case 4 (Fig. 2 B), where the radius and ulna were separated most widely under the fluoroscope. On observing the position of the hand we find that we have supinated the forearm and the palm lies upward.

8. Repeated reductions are avoided and also many open operations since the best alignment possible is obtained the first time. If operation is necessary it is immediately recognized. Consequently the parts are in the best possible condition for repair and healing.

9. Poor or fair results may be avoided and good results obtained in many cases, since the patients for some reason may not consent to a second attempt by the doctor at reduction or the doctor may prefer to let what he considers well enough, alone.

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THE MANAGEMENT OF ABDOMINAL WALL INFECTIONS*

A. MERRILL MILLER, M. D.

DANVILLE, ILL.

The frequency with which we find suppurative lesions in the abdomen requiring extensive and prolonged drainage has associated this type of lesion with incisional hernia. Incisional hernia, in turn, is likely to be the direct result of infection in the abdominal wall, rather than improper closure *per se*. If any type of closure and after care can more nearly restore the wall to its original strength, then by all means the effort is justified.

I have felt for a long time that improvement in the technique of closure would do much to reduce the danger of hernia, and at the same time improve the cosmetic results associated with extensive suppuration.

There is no doubt but patients are entitled to better looking scars than they sometimes get,

*Read before the Illinois State Medical Society, Springfield, Illinois, May 18, 1921.

there is no reason why the surgeon should not contribute more toward their improvement by carefully planned closures. The psychological effect of an ugly scar on a patient is a point which we too often neglect, and serves as a frequent reminder of a horrible hospital experience.

While clean wounds sometimes break down, it is the frankly infected ones I have in mind during this discussion. The first point, granting that any of the standard incisions is used, is utilizing a broad principle in the use of interrupted sutures. It would be an interesting speculation to know why we have used this type of stitch so universally in ordinary hernia, and with equal regularity discarded it for the continuous stitch in abdominal closures. The peritoneum being the one exception from the above in which continuous sutures offer all advantages of interrupted.

In the presence of known infection more than ordinary care should be exercised in strict closure by layers. In this respect broad approximation of muscle bellies is important, not only because of their resistance to intra-abdominal pressure, but because the fascial blood supply is derived largely from its underlying muscle.

Since there is much uncertainty as to catgut absorption in either clean or infected cases, a non-absorbable suture should be used in closing the skin, at the same time reinforcing the stitches in the fascia, and thereby providing for it a double line of sutures. It is concerning this layer and their removal I wish to emphasize. The wide gaping wounds, with the slow process of granulation led me first to leave all non-absorbable (silk worm) stitches in place during the complete storm of infection. Of course pus exudes from every needle hole, and from the incision between them, but by leaving them strictly alone for a time, the infection quiets down, the stitches loosen up or may become partially buried, and, finally at the end of four to six weeks when removed, the wound has all the appearance of primary union. The fact that a stitch is "cutting-in" is no occasion for its removal. A careful examination of the wound will show a strong scar, and one with a good cosmetic result.

I have been much impressed by the aversion of physicians, nurses and internes to leaving the deep sutures in place when bathed with pus.

Their point of view is of one who would remove them on theoretical grounds, but they become enthusiastic when the results are demonstrated.

Finally a word concerning drainage. There is no doubt but the introduction of a large cigarette drain mechanically prevents coaptation of similar structures by its size. It would seem more to the point to call this thing a cigarette dam. Nothing equals the rubber drainage tube, without gauze, for the removal of secretions. One of moderate size in the wound will provide escape for infection in the suture line. Additional stab drains may be provided. The "paint-brush" end will insure against trauma to hollow organs, and can not become occluded.

DISCUSSION.

Dr. C. C. O'Byrne, Chicago: Dr. Bevan has spoken especially of the cases in which he expected suppuration. I want to say just a word about the clean cases. In every hospital you hear them railing about bad catgut and getting catgut suppuration. We get suppuration in clean cases occasionally. We may go along for months without trouble, thinking the catgut is all right, and then we may get a run of cases in which there is suppuration. Those cases are very annoying. I occasionally have trouble, though I use no catgut except in the peritoneum for closing the abdominal wound. I go in, for instance, in doing an appendix operation through the rectus and make a median laparotomy. I go to the side of the median line just enough to keep from going through the linea alba. In closing I put one silkworm-gut figure-of-eight through the fascia and skin. Silkworm-gut is ideal, easily sterilized and easily handled and will hold as long as you want. I very rarely have abdominal wound suppuration in clean cases. The peritoneum will take care of catgut even if it is not absolutely sterile, but in closing the outer layer of fascia and skin I do it with a figure-of-eight suture.

I think Dr. Bevan's idea of using the button is a very good one. For a good many years I have used a piece of gauze, but I can see the advantage of the button over the gauze as the gauze will become soiled. I do not, where I can possibly avoid it, use catgut in the fascia. You can nearly always avoid it in the outer layer of the fascia. You will find if you close it with an interrupted figure-of-eight suture that you will have much less suppuration. If you do a hernia, get a suppuration and have a recurrence, the patient does not think much of your surgery. It is not always possible to sterilize catgut. When catgut is present you have a foreign body which must be absorbed. It takes a good deal of reaction to absorb catgut. You will go along for months thinking the catgut is all right and then you will have a case or two which make you wish you had not used it.

Dr. Leonard Freeman, Denver, Colorado: This may not seem like a very important subject as one reads

it on the program, but I think the discussion so far has shown to you that it is important. No one who does much operating escapes infections of the abdominal wound. They are of two kinds: the first comes from drainage into the abdominal cavity, as in cases of suppurative appendicitis; the other comes from direct infection of the wound. It is of the latter kind that I wish to speak. But before doing so I wish to call attention to the fact that some fifteen years ago a surgeon in Los Angeles, Dr. Witherbee, sent to various surgeons throughout the country a peculiar instrument the size and shape of a horseshoe with notches around the outside edge. This was placed around the abdominal wound and the figure-of-eight sutures, as Dr. Bevan has suggested, were tied over the edges of the horseshoe aided by the notches. This answered the purpose better than a roll of gauze and probably better than buttons or lead plates, because the horseshoe not only furnished something to which to tie the sutures without constricting the skin, but it also produced compression of the wound and pressed together the abdominal layers as one presses together the leaves of a book, thus splinting the wound and avoiding dead spaces. I put this horseshoe aside and did not use it for years. In the last year I began to use it again. I assure you it is a most useful instrument. It does what Dr. Bevan speaks of and in addition it gives the patient a great deal of comfort by its splinting effect.

Now as regards suppuration of the abdominal wound: I have no doubt that all of you have read rather recently the account by some one who advocated not using drainage of any kind in an abdominal wound which was suppurating, and not taking out any of the stitches, but simply applying moist boric acid dressings. You have all read it and no doubt many have not tried it. I have tried it, and I want to tell you it is a thoroughly successful proposition. Drainage introduces a foreign body which keeps up suppuration. If we do not put in a foreign body we have one factor favoring suppuration eliminated. By putting on moist dressings the pus is kept from drying on the surface, better drainage takes place and I can assure you the patient gets well more quickly and with less trouble to the surgeon than if we put in drainage and take out stitches.

Dr. John R. Harger, Chicago: There is one other thing which I think would be mentioned. When I was an interne in the hospital I was shown a method of treating infected abdominal wounds, especially after drainage of an appendiceal abscess and pelvic infections. The incision in those cases was usually rather limited, three inches, not to exceed four, and when proper manipulation was carried out and proper drainage inside, the wound was dressed without any suturing. True, there were some cases where there was considerable abdominal tension so that sutures were necessary. But the ordinary appendiceal abscess or pelvic abscess draining through the abdominal wound did not require any suturing. I have tried it repeatedly in the ordinary appendiceal abscess. I make an

incision about three inches long; if the appendix is available I remove it; if not, simply drain and apply moist dressings and leave the wound open. It is surprising how thoroughly these wounds will granulate and by the aid of adhesive applied for a few days to the dry surface the wounds will heal perfectly with a good scar. To show you, I could cite a couple of cases of appendiceal abscess in the early months of pregnancy in which, seven months later that abdominal scar would stand the strain of pregnancy and labor without the slightest change in the scar. There is no question but what suture material the same as a drain does act as a foreign body in the wound and will at times keep up the irritation. I do not want to say anything against the various things that have been mentioned; they all have a place, but I want to say that this method will work. No doubt a good many of you have had occasion to use it.

A COMMON ERROR IN DESCRIBING THE COMPOSITION OF HUMAN SEMEN.*

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CHICAGO.

Most examinations of seminal fluid are made because of childless marriages and are then generally limited to a hunt for live and active spermatozoa. Such superficial examinations, without attention to other details of structure or composition, have led to a perpetuation of an error which is also an example of the regrettable method of compiling medical books by copying statements from one to another without due investigation and confirmation.

Practically every text-book that mentions the composition of human semen, refers to the "corpora amylacea" as constantly occurring structures and every one interviewed, who has made semen examinations, when asked as to the frequency of their occurrence, has also expressed the opinion that these bodies are to be found in all specimens of normal semen, as well as in pathological cases.

These statements and opinions are based on the frequent presence of many small bodies that react intensely with iodine, showing a blue to an almost black coloration, according to the concentration of the iodine solution. Further investigation, however, has shown that these bodies are really starch grains, derived from the condoms in which specimens of semen are usually sub-

*From the Research Department of The Fischer Laboratories, Inc.
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mitted and on which starch is used as a lubricating dusting powder.

It is not denied that there are such structures as "corpora amylacea," though in the course of the examination of many hundreds of specimens of semen, the author has never seen one that contained them.

It is also agreed that "corpora amylacea" are frequently produced in the prostate gland, in the structure of which they may then be seen. They are not formed in any of the other tissues having to do with the production of semen.

In the investigation of this subject, the author has had opportunity to make gross and microscopical examinations of many prostate glands, a number of which were obtained from the practice of Dr. G. Frank Lydston, while others were obtained at post-mortems from individuals who had died from other causes than conditions associated with the genital organs and mostly from individuals who had been otherwise in good health and who had died because of accidents.

In these examinations it was observed that while "corpora amylacea" were often found in the prostates of old men, they were not always present. Prostates of men of even quite advanced age were sometimes found that did not show the slightest indication of these bodies. "Corpora amylacea" were also found, occasionally in the prostates of young men, but here they were of quite infrequent occurrence.

When present, they can usually be seen with the naked eye, as little spots, like pepper grains, or, as one author describes it, "as though snuff had been blown over the section." They are, therefore, too large to pass easily through the tubules of the prostate, which fact, alone, would argue against their appearance in the semen.

Furthermore, the author, in addition to examining many specimens of whole seminal fluid, normal and pathological, has also had the opportunity to examine many specimens of fluid obtained by massage of the prostate gland and seminal vesicles. Surely, the pressure made on the prostate might be expected to cause these bodies to appear in the fluid, if it were possible to dislodge them, but none were found in any of the many specimens.

The true "corpora amylacea" derive their name from the fact that they present a lamellated appearance, like some starch grains. Under the

micro-polariscope they also show a "cross," similar to starch grains. (This last fact we have not seen previously mentioned in any of the writings examined.) Noting their lamellation, observers have evidently supplemented additional information from imagination, instead of from investigation, and have attributed to these bodies staining qualities either like starch, or like the so-called "amyloid" material found in degenerations.

That the "corpora amylacea" of the prostate probably arise because of degeneration of cells from the prostate tubules, may be conceded. This, undoubtedly, explains their occurrence in the majority of those old men from whom it was necessary to remove this gland. They are probably associated with the long continued, chronic or sub-acute inflammation, following as a sequence upon original gonorrheal infections—the pathology which ultimately required the operation of prostatectomy. All the prostates from old men that showed these structures in our investigations, were obtained from cases in which such operation was done, while those from old men that did not show them, were either obtained from the post-mortem cases above mentioned, or were removed for other causes than ordinary hypertrophy, e. g., for carcinoma, etc.

Although starch-like in structure, these bodies are, of course, not starch-like in composition, neither are they composed of "amyloid," as can be demonstrated by their staining reactions.

Amyloid stains brownish-red with iodine. "Corpora amylacea" stain brown. Amyloid stains blue-green or violet with iodine followed by sulphuric acid. "Corpora amylacea" stain brown. Amyloid stains a deep red with methyl violet. "Corpora amylacea" stain violet. Starch stains blue with iodine and violet with methyl violet. "Corpora amylacea" stain violet. The apparant staining of the "corpora amylacea" is, therefore, not a reaction, but merely an absorption of the stain. In order that the color may be seen clearly, the bodies should be crushed, which is easily done by mounting and making pressure on the cover-glass.

SUMMARY

"Corpora amylacea" of the prostate are not "amyloid" in composition, as shown by their staining reactions with (1) iodine, (2) iodine fol-

lowed by sulphuric acid, and (3) with methyl violet. They are also not starchy in nature, as shown by their reaction with iodine, although they do show concentric layers like some forms of starch and also show a "cross" when examined with micro-polariscope.

While "corpora amylacea" occur in the prostates of most old men and in the prostates of some young men, they are not always present. When there, they are the result of disease—degeneration.

"Corpora amylacea" are large enough to be seen with the naked eye and their size precludes their escape from the prostate tubules.

"Corpora amylacea" are, therefore, not found as a usual constituent of the semen.

When "corpora amylacea" are present in the prostate, it is not possible to express them by massage.

The so-called "corpora amylacea" found in the specimens of semen as usually submitted for examination, are really starch grains, obtained from the condoms in which the specimens are furnished.

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CHRONIC INFECTIONS*

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The wastage of war has made conservation a necessity. This applies not only to material things but to life. Conservation of life by the advances of preventive medicine especially as it relates to the infectious diseases is a great tribute to medical science. Recent advances in the field of bio-chemistry and diagnosis have opened up fresh avenues for the conservation of the patient, both as to life and as to the duration of the period of disability, thus restoring the individual to society as an economic unit at the earliest moment.

While it is not possible to touch upon all of the factors which recent experiments have contributed to the cause of conservation, a few, which seem firmly established will be discussed.

Focal infections have commanded the attention of the profession, especially infections of the

respiratory and oral tracts. The far reaching effects of even minute pockets of infective material upon arthritis and myocarditis is common knowledge but the finding of these small sources of infection it not always possible even though we may be morally certain that such exist. The common seats of election such as the teeth, tonsils, sinuses of the respiratory tract, biliary and bowel infections including appendicitis, may give up their secrets upon the first examination but at times, it is not possible to discover the lesion, even with repeated examinations and with every laboratory aid. It is, therefore, necessary to bear in mind that focal infections are by no means confined to any tissue or area and a diligent search must be made of every organ when the commoner sites prove to be normal.

Medical research is ever bringing more diseases into the category of infections and it is a striking fact that those lesions which are produced by the invasion of the lymphatic tissues, such as Hodgkin's disease and lymphatic leukemia, are now almost universally believed to be caused by microorganisms, though there may be some dispute as to the specificity of the germ. It is a significant fact that the large, highly virulent, resistant organisms which cause many of the acute diseases were the first to be recognized because of the comparative ease with which they could be isolated and stained and because of their striking individuality and morphology. They are the foundation upon which the science of bacteriology is built.

In general, one might postulate that those organisms which produce acute, more or less self-limited diseases are large, easily recognized under the microscope, stain easily and are resistant to methods ordinarily used to kill germs—while the organisms which produce chronic pathologic states are non-virile, hard to cultivate, stain poorly and are not readily recognized under the microscope, in many cases being possibly ultra-microscopic. The one striking exception to this proposition is the tubercle bacillus, which, because of its size and acid-fast stain, was among the first of the pathogenic organisms to be recognized and classified. Syphilis, on the other hand, is its prototype. Syphilis is a chronic disease,

*Read before St. Joe County Medical Society, So. Bend, Ind., Nov. 6, 1921.

it is not self-limited and does not tend to spontaneous cure. Long periods of freedom from symptoms is almost the rule, while the spirochete apparently lies dormant in the tissues. The *Spirochaeta pallida* is easily killed, difficult to cultivate, stains poorly or not at all and is not easily recognized under the microscope.

It is generally conceded now that many chronic diseases formerly classified as diseases of metabolism are upon an infective basis, for example, various cases of psychoses, frequently described as of unknown origin have recently been discharged as cured from institutions, following the eradication of pockets of infection. This is especially true of those lesions which spread by the lymph channels and produce enlargement of the lymphatic glands. The lymphatic glands filter out the pathogenic organisms in their attempt to invade virgin areas and as the result of the interruption of the progress of these organisms, there is a swelling of the group of glands involved. The further fate of the glands is determined by the type or virulence of the infection. In the ordinary, acute pyogenic adenopathies the glands are either destroyed by the digestive and liquifying action of the microorganisms or they return to their normal state as the infection subsides. The reverse of this is the rule in non-virulent chronic infection of the lymphatic glands. Under the influence of mild but chronic infection, the glands tend to become permanently enlarged and while there may be some recession in size, this is usually only temporary and the glands never return to their normal state. This is evidenced by the persistence of the cervical adenopathy in chronic tonsillitis, middle ear disease, of inguinal adenopathy in chronic venereal disease and of generalized adenopathy in syphilis. Hodgkin's disease, or lymphadenoma, formerly defined as of unknown origin, is now firmly established upon an infective basis. There is dispute as to the specificity of the causative organisms. Yates and Bunting claim a specific organism as the cause of the glandular enlargement and have produced a vaccine with which they claim to have observed some clinical improvement when used in conjunction with operative removal of the glands and X-rays but other observers have been unable to confirm their reports.

Lymphatic leukemia and spleno-medullary

leukemia are now regarded as infective diseases but no specific organism has been isolated, yet the clinical course of each has every characteristic of a chronic low-grade infection. Pernicious anemia is now regarded by many observers as due to some chronic infection although unaccompanied by any glandular enlargement, and temporary improvement has followed removal of focal infection, splenectomy and blood transfusion.

There is reason to believe the study of non-virulent chronic infections will do much to clear up many pathologic states now classified as diseases of metabolism and this includes carcinoma and sarcoma. Many of us can remember when the science of bacteriology was referred to as the germ theory. Is there not much more reason to believe that cancer is of bacterial rather than of metabolic origin? Coley's work with mixed cultures inoculated into sarcomatous masses at least showed that the tumors were influenced by pathogenic organisms. Transplantable tumors in animals fulfill certain of Koch's postulates but have not as yet been worked out in many.

The striking similarity of the mode of onset of tuberculosis osteomyelitis and periosteal sarcoma must arrest the attention of every thinking clinician. In a large percentage of cases the history dates back to a trauma frequently of so insignificant a character that it has almost been forgotten by the patient and which is only recalled by the persistent attempt of the medical attendant to elicit it. This trauma is often followed by a quiescent period varying from three to six weeks, at the expiration of which time the characteristic symptoms of pain, swelling and diminution of function develop. The further course of tuberculosis is frequently modified by the addition of pus producing organisms which is characteristic also of the later stages of sarcoma. While many other points of similarity might be mentioned, these are sufficient to show cause why the element of infection must be given consideration in the study of sarcoma.

The observations made in the Mayo Clinic of the changed chemical reaction of the oral secretions in the presence of cancer is striking. It was found that the normal alkaline reaction of the mouth became acid in the presence of focal

infections of long standing; pyorrhea, maxillary osteomyelitis and other infections.

Cancer of the oral cavity was always found growing upon an acid soil. May it not be that these delicate organisms must have an acid medium in order to grow? Under the influence of many oral infections, the normal alkaline reaction of the mouth is changed to acid. In cases of epithelioma of the tongue and buccal mucosa, the reaction of the tissues is acid. Continuing down the gastro-intestinal canal, the incidence of cancer is rare until the acid stomach is reached when cancer becomes common. It is most common in that portion of the stomach which has the highest concentration of acid, viz, the pylorus. Passing abruptly into the alkaline duodenum, the occurrence of cancer is rare but becomes increasingly more common until the sigmoid and rectum are reached where its incidence is relatively common. This is possibly an indication that the right chemical reaction of the tissues is a prerequisite for the successful implantation of cancer cells.

The secretions of the vagina have no constant chemical reaction but are influenced by the type of infection. However, the reaction of the vagina is acid in cases of carcinoma of the cervix.

The cancer age approaches synchronously with a diminution of alteration of the secretions of the endocrine glands. It is probable that there is a change in the chemical reaction of the tissues and body fluids at this time which renders the soil favorable for the reception of the cancer organism. It is at this time that chronic mild grade infections should receive the medical attention to which their great importance entitles them because of the profound, insidious and frequently permanent influence upon the cells of the organism. Virchow developed the history and pathology of the cell. Crile has demonstrated its physiology, which he has beautifully epitomized in his article upon drugs in surgery in No. 15, Vol. 77, *Jour. A. M. A.* as follows:

"A study of the structure of the cell gives the clue to its prime function and therefore to the methods whereby it may be conserved and repaired.

"The cell content consists in the main of colloidal particles suspended in water. Two colloids of different reactions separated by a semi-permeable membrane constitute an electric bat-

tery. A cell, therefore, is a diminutive electrochemical unit or battery." (Crile.)

If, therefore, the chemical reaction of the cell may be changed by infection and if, further, it has been established that carcinoma, at least in certain localities, thrives best on an acid medium, is it not the duty of the diagnostician to redouble his efforts in the search for pockets of infection, not only along the familiar paths of routine examination but in virgin fields. To mention the fact that many chronic infections become established at the time that the cancer age begins must make us act upon the theory that there is a connection between the two until the contrary is established.

If by reducing the number of chronic infections in one region alone the incidence of cancer is diminished in that area, a great step in conservation will have been accomplished.

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SYSTEMIC INFECTIONS DUE TO ORAL SEPSIS.*

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CHICAGO.

If I may be allowed the use of a figure of speech, I am going to liken certain movements in the dental world to *tides*, certain other movements to *tidal waves*. A tide, you know, is that diurnal ebb and flow of the sea — movements which are expected and so can be guarded against. A tidal wave, however, is the result of unexpected, unlooked for barometric conditions, a movement which, unexpected and hence unguarded against, sweeps over vast territories, uprooting and carrying on its tumultuous surface many valuable things. Carrying, we may say, all things whose roots do not run deep into the sub-soil of truth.

With dental and medical tides we do not treat today, but the great tidal wave of systemic infection due to oral conditions claims our serious attention.

That serious systemic infections occur as a result of suppurations in the mouth is a view which, starting as a small wave of progress, has been increased to overwhelming dimensions by many notable papers and laboratory experiments in recent years.

The first utterance which startled the medical

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and dental worlds from their smug complacency was that of Dr. William Hunter of London in 1911, in which he lashed the dental profession unsparingly for allowing chronic abscesses and other forms of chronic suppurations to continue in the mouth. Dr. Hunter called attention to the fact, as it had never been done before, that the foci in the mouth are in the same causal relation to arthritis, cholecystitis, endocarditis, nephritis, etc., as are infected tonsils or chronic suppurations in other locations.

In this paper, among other things, he says, "In my clinical experience, septic infection is without exception the most prevalent infection operating in medicine and a most important and prevalent cause and complication of many medical diseases. Its ill effects are widespread and extend to all systems of the body. The relations between these effects and the sepsis that causes them are constantly overlooked because the existence of the sepsis is itself overlooked. For the chief seat of that sepsis is the mouth; and the sepsis itself, when noted, is erroneously regarded as the *result* of various conditions of ill health with which it is associated, not, as it really is, an important *cause* or *complication*."

"The causal connection between the two sets of processes—the sepsis and its ill-effects—can be demonstrated by simple expedient of removing the sepsis and noting the striking effects which the removal has upon the existence, character and intensity of the ill-effects."

This paper of Dr. Hunter's startlingly focused the attention of the medical world upon the clinical aspects of oral sepsis, but it did not have the undisputed proof or evidence which only scientific demonstration could give. Certain inexorable laws regarding infection, given to the world by Koch, must be adhered to before one can claim the right to say it is causal. Those laws are: 1. The specific organism must be associated with the disease. 2. It must be isolated apart from the disease. 3. When introduced into healthy animals it must produce the disease, and in an animal in which the disease has been experimentally produced, the organism must be found under original conditions.

The work of Dr. Hunter and many others could be summed up by saying that clinically they noted the improvement which followed the extraction of the teeth in hundreds of cases.

The relationship of the primary focus and the systemic condition has been established beyond dispute by certain experiments made by Dr. Frank Billings and more particularly by Dr. E. C. Rosenow. These two Chicago men found the organism in the original focus in the mouth or tonsil, they also found the same organism in the inflamed joint. These they cultivated and injected into animals producing identical lesions in these animals and finally recovered the organisms from the affected tissue of the animal.

I assume that you are familiar with the experiments of Rosenow in which he demonstrated the mutability of micro-organisms, finding, as he did, that the character of the organism found in the lesion might be quite different from the character of the micro-organism in the focus of infection at the same time. Of this he says: "My study of the effect of varying degrees of oxygen tension on members of the streptococcus group, together with other facts, makes it likely that it is in the focus of infection that changes in virulence occur and the different affinities for various structures are acquired. In other words, the focus of infection is to be looked on not only as the place of entrance of the bacteria, but also the place where the organisms acquire the peculiar property necessary to infect."

One of the most interesting features of Dr. Rosenow's work was presented in a paper entitled "Bacteriology of Vascular Infection," read before a meeting of the Chicago Surgical and Pathological Societies, January, 1918. He reported the results of experiments on animals with pure cultures of streptococci. These were from cases of appendicitis, ulcers of the stomach, cholecystitis, and arthritis in humans, the injections being made in animals, mostly rabbits and dogs. The animals revealed the fact that the streptococci, in a large majority of the cases, produced lesions in the animals in the same locations and of similar characters to those in the person from whom the culture was obtained; for example, his first experiment—59 animals were injected with fresh cultures from cases of appendicitis and of these 41 were found to have developed inflammations of the appendix, 5 showed either ulcer or hemorrhage of the stomach, 1 inflammation of the gall-bladder, 17 of joints, 13 of the endocardium, 5 of the myocardium, 7 of

muscles, 4 of kidneys and 4 elsewhere of the intestines. In the second experiment, 79 animals were injected with fresh cultures from ulcers of the stomach, and of these 47 were found to have developed hemorrhage of the stomach or duodenum, 50 developed ulcers, while only 2 showed inflammation of the appendix, 20 of the gall-bladder, 3 of the pancreas, 10 of joints, 9 of endocardium, 5 of myocardium, 5 of kidneys and 7 lesions in the intestines.

In the third experiment, seventy-one animals were injected with fresh cultures from cases of arthritis, of these 47 developed joint inflammations, etc.; similar experiments were conducted by injecting streptococci which had been cultivated through several generations. These cause inflammations markedly less in number and showed much less tendency to establish themselves in the same locations in the animals as in the individuals from whom the cultures were obtained.

These experiments seem to have established beyond question the importance of the blood stream as a carrier of infection and also the very peculiar and as yet unexplained tendency for the organisms to have what might be termed a selective affinity for the same tissues in animals as in the individuals from whom cultures were obtained. With these laboratory experiments and clinical facts before us, we have a working basis for the consideration of systemic diseases due to oral infection.

Such infections are divisible into 2 groups:

1. Gingivitis and so-called pyorrhea alveolitis.
2. Infections, acute and chronic, at the apices of the teeth. These infections can influence the rest of the body in one of two ways: one is by metastatic infection, bacteria going through the lymph channels into the blood and setting up a secondary metastatic infection at some distant part. The other way is by absorption, not of the bacteria themselves, but of their toxic products, after absorption, reaching distant parts of the body and injuring them.

I take it for granted that this audience is acquainted with the different kinds of diseases that may be associated and perhaps causally connected with oral sepsis as spoken of by such internists as Billings, Barker of Johns Hopkins and a host of others.

The secondary effects include a very wide range of conditions. Chronic arthritis, endocarditis, nephritis, cholecystitis, ulcers of the stomach and appendicitis are the most frequent definite lesions. General impairment of health and vigor with or without recognizable lesions, is common.

Arthritis. The frequency with which the acute and chronic infections to arthritis are associated with oral sepsis must impress every student of this subject. The one thing that is firmly established in regard to this relationship is that a large proportion of such cases, after adolescence, are due to infections about the teeth, the blood carrying all bacteria thence to the affected joints with resulting secondary infection to those joints.

In seeking causes the age of the patient is an important factor. In young persons—say up to 20 years of age—arthritis is not due to oral infection, but to secondary infection of the tonsils, or adenoid tissue or infections of the paranasal sinuses. This, according to best authorities, is found in the majority of cases. In middle and in later life, very few cases are due to these causes mentioned, but are largely due to periapical infections of the teeth.

Sometimes when joint conditions do not clear up quickly after the removal of infected teeth, there is great disappointment. The patient, and oftentimes the physician and dentist, have a sense of failure. We must realize, however, that we have no longer to deal with primary infection of the teeth alone, once metastatic infection of the joints have actually occurred, we not only have to deal with primary infection of the teeth, but with *multiple secondary infections* in the joints. Only very slowly, indeed, do these latter infections heal, even after the primary focus has been removed. And it must not be forgotten that each of these secondary foci may, in turn, serve as a primary focus for still other metastatic infections.

In view of all these facts, therefore, when an arthritis persists after a surgical removal of an original focus of infection, we must not be discouraged. We should bear in mind that several foci of infection may exist. In such a case, the removal of one only, of course, would not necessarily prevent the occurrence of further *metastatic infections*.

Endocarditis. Endocarditis is another disease due to infections. As in the case of arthritis,

its most dangerous symptoms are shown in the old patient and not in the young.

Serious forms of endocarditis due to streptococcus viridans are not uncommonly met with in adult life. Internists and bacteriologists tell us so.

"It is not at all uncommon to have viridans endocarditis arising from infected teeth," says Barker. And further, "I have personally observed over 20 cases and every one of the patients is dead." It was possible for Dr. Barker to demonstrate, in several of these patients, the presence of streptococcus viridans in granulomata in the mouth.

Arteriosclerosis. The presence of infection of any sort in the body predisposes to the development of arterial disease. Internists have come not only to that conclusion, but to its natural sequence, that the presence of such infection tends to aggravate arterio-sclerosis and increases blood pressure when they already exist. Says Dr. Barker: "The method of procedure at Johns Hopkins Hospital is to study the mouth in all cases of arterio-sclerosis and of arterial hypertension in order to detect there any source of infection that may signify danger. They do that not only in the cases here mentioned, but in every patient who comes for diagnostic study. Suspicious gums are carefully examined and every pulpless tooth is x-rayed. A report from an expert dental diagnostician is considered with other accumulated data, before they make the final diagnosis."

It is not well to forget, however, the natural resistance of the tissues, and that no tissue is more vigorous in resisting infection than the mucous membrane of the mouth. This resistance is inclined to prevent or retard the occurrence of systemic lesions from chronic foci. The presence of such a focus does not indicate that an individual is suffering from systemic effects, but it does indicate that there is a constant, lurking danger. The chances are, however, that many people—probably most of those who have such foci in the mouth, live in excellent health—or apparently so, for years.

But here we come to a most important point: The development of the definite lesions from these foci is so gradual that they are generally not recognized by the patient and he does not come to the physician until the disease has made such

progress as to make obstinate resistance to treatment and in many cases to become incurable.

Right here is the great opportunity of the dental profession—an opportunity which is without parallel in medical achievement. The dentist's territory is the mouth and it is beyond question that this place contains more such foci than all the other regions of the body combined. The physician finds great difficulty in the treatment of these secondary effects. In a thorough mouth examination, which must be made by the dentist, the foci are easily recognizable. In this important matter a thorough understanding between dentist and physician makes for success. To this must be added the education of the people to the danger from primary focus, the insidious progress of the secondary effect, and its intractableness to treatment.

The dentist should apply treatment on the basis of a careful diagnosis and his knowledge of the danger to the person who apparently is in perfect health. This is preventive practice in the highest degree.

It is the duty of every dentist to keep the mouths under his care free from these centers of distribution of infection. Every one who has a full appreciation of the situation realizes that in so doing he is discharging a high duty to humanity in the preservation of the health of his fellow man.

It would seem that a pretty bad case has been made against the teeth. That the indictment against them would warrant their wholesale extraction and be done with them for all time; that they are the hidden and sinister enemy that is shooting poisoned arrows into our bodies while we hospitably and beneficently play the part of host. This is but partly true. I have purposely focused your attention upon the teeth as a source of infection because that is the business of this paper and, further, because the world is awakening to its importance in the light of modern researches and findings.

But a word of caution is necessary. The teeth are but one of the foci from which the diseases above referred to may arise. There are many sources from which similar infection and results may come. Prominent among these are the tonsils, paranasal sinuses, gall duct, thirty-two feet of intestine, Fallopian tubes in female, prostate gland in male, in short, wherever in the body the

conditions are favorable for the manufacture and distribution of pathogenic organisms there they will propagate and be distributed, only the foci referred to seem to be the prominent breeding places for these organisms.

The practice of the physician until quite recently has been, when in doubt, extract the teeth. Indeed, in one large and prominent hospital in Chicago, the first prerequisite to eradication of systemic infection was the wholesale extraction of all the teeth and excision of the tonsils of such patients. It was a common thing, when visiting this hospital, to see in the operating room, teeth and tonsils lying around in such profusion as to be utterly appalling.

What was true of this hospital in Chicago was, to a greater or lesser degree, true everywhere, but be it said that today the pendulum is swinging in the other direction, and we are slowly, but surely, approaching a saner attitude of mind regarding these conditions, their causes and treatment. This *tidal wave* of radicalism swept over the medical and dental professions with great momentum and carried with it great portent of evil. As a consequence, thousands of teeth were sacrificed that the art of modern dentistry might have saved.

Men of dentistry and medicine have fallen into the very natural error in adapting the logic which I might illustrate by a familiar example: "A cat is an animal and has four legs, therefore, every animal that has four legs is a cat."

This kind of reasoning has influenced many men in medicine and dentistry, regarding all teeth under suspicion, and as a reflex, the lay world has in its fear and hysteria been sacrificing its teeth and creating a condition (so far as mastication and food preparation for assimilation is concerned), much worse than they sought to relieve.

It will become necessary, therefore, in arriving at a positive conclusion for the best interest of your patient, that all the factors that may enter into the case be carefully examined. To do this no one man is wholly capable, because no one man is in possession of such knowledge. Dr. Frank Billings says: "To investigate and manage these patients requires team work of the clinical and laboratory workers. The clinician must carefully examine the patient, exhausting every detail in the personal history. The skill of the

dentist, the nose and throat specialist, the gynecologist, the genito-urinary expert and others, may be necessary to locate the foci of infection. The focus must be destroyed."

In a general way, I should say the internist, the dentist and the radiographer are the three most important persons who should pass upon the findings, and assuming that they are fully competent to interpret what they find, their opinions should be supreme. Often the bacteriologic findings, the blood count, the examination of urine and the usual laboratory tests, will have to be made as a necessary adjunct, but in the great majority of cases the three specialists I have referred to will suffice.

I have tried now to show that it has been generally proved that certain diseases are clearly related to an infected condition of the teeth. Enough has been proven to show that it is necessary to include in a diagnostic survey, an examination of the mouth.

From any general diagnosis, oral sepsis cannot be excluded. Because of the spread of this idea it is now the rule that physicians and dentists work together. Of course, there are many difficulties to be adjusted. No ideal was ever attained without the overcoming of obstacles. But all indications seem to strengthen the hope that in time the hoped-for condition will be realized.

In relation to this matter, we may place dentists into three classes: Those who really do not know the importance of the relation of mouth infection to the health of other parts of the body. 2nd. Those who know these things, but are ignorant of what an adequate therapy may be in these cases. Of course, these dentists rarely obtain desired results. In the third class are those dentists who accept the theory with such enthusiasm that they permit themselves to carry it to the verge of abuse. Such dentists repeatedly order a wholesale extraction of the teeth, without waiting for a careful and detailed diagnosis. In this way many teeth which are perfectly innocent of offense are sacrificed and the faith of the suffering patient very largely decreased. The medical profession has as yet but imperfectly mastered the matter of oral sepsis—its frequency and danger—and much that is said of the dentist here could as truly be said of the physician.

As to the advisability of extraction, there is often a wide difference of opinion between physi-

cian and dentist. This is regrettable, as the success of this whole thing depends upon the harmonious co-operation of these two branches of material help. I am going to make so bold as to point out what I believe to be a glaring mistake on the part of some physicians. When such a physician as I have in mind eliminates by exclusion all other apparent causes of infection—without consulting a dentist, he sends the patient to a radiographer. He then takes the report of this specialist and forthwith orders the patient to the dentist's chair. Oftentimes the teeth extracted had no relation whatever to the trouble, the cause of which is frequently found in some source of infection which had been overlooked. Consultation with a dentist would have prevented such an error for which the patient pays heavy toll. These cases you may say, are not frequent; yet, my friends, there are enough of them to give color to the thought that both physician and radiographer may sometimes err. From an ethical point of view, if for no other, I believe that the dentist should be called into such cases.

In addition to these points there are two points that may be considered debatable between the radical physician who insists upon the extraction of all teeth that may become foci of systemic infection, and the conservative dentist who, for purposes of mastication and nutrition, would conserve those organs by the methods of modern dentistry.

The first are the accessory foramina found at the apices of the roots, with their remaining pulp shreds and, because of their inaccessibility, unfilled.

The second are the inadequately filled pulp chambers to their apices, about which no rarefied areas are shown by the radiogram. My reference to the first condition at present is solely for the purpose of calling your attention to the uncertain scientific position that condition occupies, as a source of infection, and because of that fact, it should be given the benefit of the doubt, until further evidence is adduced, and be permitted to remain and perform the function for which the teeth were designed.

Such evidence as we have upon these foramina tends to the conclusion that their contents become organized, and their openings finally are

covered with cementum, thereby preventing infection at those points.

The second debatable point wherein the roots are inadequately filled, but show no shadow about their apices, should be seriously considered before being consigned to the forceps. The origin of adequate root therapy has developed only within the past five years. Before that time the unscientific methods employed, doubtless, were responsible for many cases of systemic infection, but in spite of that fact, thousands of teeth, although improperly treated, have been saved and the x-ray shows no shadows about their apices, and no outward effects visible. Either through the resistive and recuperative forces of the tissues in and about these apices, or the good fortune that no chemical or bacterial agent was introduced into the root at the time of the root filling, has spared these roots of being responsible for an infectious conditions, as the radiogram reveals. The conservative dentist pleads for the retention of these teeth, but always with the reservation that they be constantly watched for untoward symptoms.

Radiography. The many scientific inventions of recent years have made their impress alike on dentistry and medical practice. The x-ray and its revelations is one of the most interesting of these recent steps of progress. In the dental practice the radiograph has been a great aid, but at the same time we must confess that it presents a great danger. It has aided us by showing the limitations of our pulp canal work, and by its light we too often see the difference between what we aimed to do from what we really accomplished. It shows us the ravages of absorption in the bone around root ends. It gives us a better understanding of the results of our technical procedure and points out to us the impossibility of doing some of the things that we used to try to do. And this has been an incalculable help in dental practice; but, while appreciating this aid, we must admit that often this great helper has misled us. As a discloser of conditions around root ends we must confess that the radiograph has its limitations. This is largely because our interpretations are often at fault. Any shadow at the apex of a root meant an abscess or an infection when often this shadow was merely the indication of a thinning of the bone from some absorptive

process which might have occurred long ago, and which now is positively without infection.

Let me repeat that the radiograph has its limitations and is far from being infallible. By its aid we can see merely different degrees of density, but it cannot show us pus and hence it bears no tidings of infection.

When the skiagraph is used there should always be a careful clinical examination accompanied by a study of the history of the case. And after all this is done, often it is difficult to arrive at a conclusion that is convincing.

In this matter we should endeavor to keep our equilibrium. We should not allow the tidal wave of popular clamor to sweep us away from our safe moorings. The wholesale destruction of many useful teeth leaves terror in the heart of the patient and a distrust of the real tide of knowledge that has come to us, viz.: that many forms of disease are directly traceable to diseased and neglected teeth. It cannot be too strongly said that a tooth which cannot be made healthy should be extracted, but all of us who have looked into this matter know that many teeth today are being cast out when they could be made things of use and beauty by modern methods of treatment.

Let us then, my friends, take every precaution against this *tidal wave* of error, this reckless and blind following of a new thing; but on the *tide* of clear understanding and sane methods, let us co-operate for the betterment of humanity and the further advancement of the science of our respective professions.

ABNORMALITIES OF THE MASTOID WITH ESPECIAL REFERENCE TO THE FACIAL NERVE*

CLARK W. HAWLEY, M. D.

CHICAGO.

A number of years ago, I heard one of the members of this society remark to his class that he would not allow one to operate on him for mastoiditis unless he had performed fifty such operations on the cadaver. I had performed the simple operation without difficulty and wondered why he said it.

With my friend, the late Dr. Richard Brown, I secured the privilege of demonstrating the

operation to the students in one of our medical colleges; and the experience there gained in something over 300 dissections has proved invaluable to me since, as I have met these abnormalities in operations on the living subject, and was thus enabled to overcome them.

On the first subject, I discovered one of the reasons why the doctor made the remark. On removing the cortex, I plunged at once into the lateral sinus (as you will notice on the specimen as it passes around); on further dissection I found that the anterior wall of the sinus almost coincided with the posterior wall of the meatus and that to reach the antrum I must dissect away a portion of the wall of the ear (as you will see has been done on the specimen). The mastoid bone on the opposite side showed the same abnormality. Many subjects would show a change from normal only on one side. I now pass the specimen around and you will notice that the lateral sinus occupies nearly all of the mastoid tip, and that the wall of the sinus and the wall of the ear were almost in contact and that I have removed a large part of the wall of the ear to reach the antrum.

In these 300 dissections, we found many such abnormalities, and other variations from the normal as well. On the surface of the bone we found certain departures from the usual which enabled us to predict a displaced sinus with great accuracy. The mastoid fossa would be deeper and the surrounding bone higher, the spine of Henle higher up on the edge of the wall, as I was enabled to demonstrate on the living subject recently. I predicted to the students that we would find a displaced sinus, which proved true.

Sometimes the surface of the mastoid would be very easily removed, and at other times it would be found so dense that it would be very difficult to remove and the denseness extending almost to the antrum. Then again we would plunge directly into a big cell and at times this cell would lead directly into the mastoid antrum. Sometimes the antrum would be so small that it seemed to be almost wanting, and was with difficulty found where expected. Then we would find one where the whole mastoid was involved in the antrum. At times the mastoid bone would be made up of very small and numerous cells, in others the cells would be large and easily

*Read before Chicago Laryngological and Otological Society, March, 1921.

broken down. The depths of the antrum varied from 10 mm. to 30 mm.

From our experience we came to the conclusion that in doing the simple operation one should do more than expose the antrum and establish drainage as many operators do and possibly having to do a second operation because of infected cells being left behind, one should clean out the mastoid tip thoroughly at once, and gently remove all granulations from the antrum, being careful not to enter the middle ear.

The most interesting abnormality met with in these 300 dissections is one sometimes fraught with very serious consequences to the patient, and the one that suggested to me this paper, namely, a displaced facial nerve.

I pass around two dissections which I wish you would examine very carefully and convince yourself of the displacement. Deep in the cavities

my former error, I carefully dissected off the hard bone and there beneath lay the facial nerve. If you will turn the specimen over, you can trace the nerve from its origin in the petrous portion to its exit in the tip of the mastoid bone. The demonstrator of anatomy agreed with my contention that the nerve was displaced.

The fourth one was lost as I had left it for my assistant to saw out, and he neglected to do so.

These malpositions of the nerve may account for some of the paralyses we so frequently see. An operator on the mastoid should be on the lookout for this condition, and he can always recognize it, as the bone over the nerve will be harder than the surrounding tissue and will be a line only.

The nerve should lie in the base of the posterior wall of the meatus and should keep that position



you will find black streaks which occupy nearly the center of the path leading down the center of the mastoid bone from the antrum. I have painted the nerve black so as to make it more visible for photographing, the sides white for the same reason.

The nerve should travel in the base of the posterior wall of the ear, but here you find it in specimen 1 about three mm. to the rear of its proper place, and in specimen 2 four mm. Both are directly in the path one must cut when cleaning out the mastoid.

I found four such dislocations; these are the second and third. On the first one I accomplished what one would be likely to do on the living subject, spoiled it by not recognizing its malposition until too late to save it as a specimen. When dissecting the second one, I noticed that I was on harder bone than the surrounding tissue and that it was a narrow steak, and remembering

until it enters its foramen, then it is in no danger of being injured in an ordinary operation by a careful surgeon.

With these findings on record it will be much easier to combat malpractice suits, if not totally defeat them, as even a good operator would be excused for lapses.

Another abnormality was met with that must be exceedingly rare. On demonstrating the course of the nerve in the petrous portion, I found in one specimen that the main nerve entered a blind pocket while sending only a very small filament on as the facial nerve proper in its usual course.

In reporting these abnormalities, I hope the operator will be benefited by the knowledge of how to prevent these accidents to the facial nerve, also that their possible existence will assist the expert witness on the stand in protecting his professional brother.

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FOCAL INFECTION WITH ESPECIAL REFERENCE TO THE APICES OF THE TEETH.*

F. S. O'HARA, M. D.

SPRINGFIELD, ILL.

William Cowper Brann, editor of the *Iconoclast*, during his useful life, dealt a great deal with reforms, innovations and attempts to reform things. He died at the hand of an assassin, battling to the very last, for what he considered right and just. In speaking of reforms and of reformers, Brann insisted that the propagandist should be possessed of a solid ivory head and a rubber neck.

Though a great admirer of Brann, I never could believe in the head and neck specifications. I would much prefer to strike out the latter part of the clause and substitute a concrete pill box.

Some months ago, I appeared along with other celebrities at a Three State Medical Meeting in Iowa. My subject was the favorite "focal infection" topic. Among my audience were medical men of international fame. They heard me courteously to the end, and under the head of "discussion," not only did the audience agree with me, but they made it clear that I was all too mild in my condemnation of pulpless teeth.

I was invited by the dental association of the same city to address them that evening. Escorted by two dentists, I tripped gaily to my dilemma. A fine big dinner, and then the fatted calf was led to the shambles. I gave them everything in my little bag of tricks, and they seemed to enjoy the performance. All good things must come to an end, and my oration was no exception. Under the head of "discussion" a well groomed but heartless dentist took the floor.

I had thought I knew something about the bacteriology of focal infections; I think it yet; but I confess my innocence concerning how easily the truth may be juggled by others than attorneys.

In a very few minutes I had learned (?) that everything heretofore said, concerning the culpability of devitalized teeth, had been retracted and the various group clinics were spending their nights in prayer for forgiveness in that they had sacrificed devitalized teeth in endeavoring to eradicate disease. That English investigators

have decided that the *Streptococcus viridans* is a "beneficent" germ (my worthy opponent was thinking of the amoeba in pyorrheic conditions), and that the medical profession have been barking up the wrong tree.

I had my choice of two diplomatic courses. Either call the gentleman a condemned illusionist, or insist that my statements were correct. I chose the latter; but I feel that the votes of the audience would have been a fifty-fifty affair, and the contest was a "draw."

From the various statements made by my opponent I selected a few things to verify. I addressed letters to investigators, who I knew were paying especial attention to dental pathology. *The replies were unanimous in condemning in no uncertain words the devitalized teeth.* My dentist friend-enemy would have withered away, could he have seen the letters.

But, the point is here—"Mark how the devil can cite scripture to his purpose." In the past few months I have read a number of articles upon the success and failure of venereal prophylaxis in the army. "A" proves that it is 99.44 per cent successful and "B" shows it to be a failure.

How do we reconcile these statements? The one and only way is that of taking the figures and combining *our own* statistics.

Now, concerning focal infection from the teeth. It has been my good fortune to have examined a multitude of complete dentures, searching for foci for pus. In several hundred instances, wherein I have rayed the entire complement of teeth searching for "rheumatic" causes, I distinctly recall that in two only, did I fail to find distinct pathology at the dental apices. Now then, make *your own* statistics.

And here is where we fasten upon a snag. The dental profession, skilled in the art of restoring dentures, and spending a life-time in perfecting themselves in the work, must not be expected to stand by without protest and see their sand castles reduced to nothing. We must remember that dentists are not instructed in general pathology nor in systemic disorders; and in this knowledge it is really remarkable how the dentists as a class have been willing to pull down their old gods and to take up the new order of things.

Unfortunately, there exist some dentists who

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consider the failure of sterilization of the root canal as a personal break in technic. We who have followed the ramifications of the subject-matter realize that sterilization of a root canal is hardly within the range of possibility.

I have heard many arguments, I have read many theses for and against devitalized teeth; but in all the literature I have followed, I have yet to find a pathologist (of the microscope and culture media type) referring to a devitalized tooth as being impotent for harm.

I have checked against the "treatment" of many teeth, and whilst I have seen book illustrations of bone repair following the complete sterilization of the root canal and apex, I have yet to see in my own work a case that has filled with new bone. In fact it has ever been the other way around. The apical destruction has grown larger and larger until the "willing-to-learn" dentist sees the great light and extracts the tooth. Which brings us to the subject of "curet or not curet."

Drawing my inference from a number of cases in which the offending tooth had been removed, the alveolus filled in, but a rarefied area in the site of the apex persisted, I am in favor of a curetage, especially in cases of long standing.

It were possible for me to inflict my audience with a list of diseases resultant from focal infections of teeth. Such were well likened to reading upon the wrapper the list of diseases curable by the bottle of patent medicine. Everything from falling of the room rent to housemaid's knee may come into the list; and when we have finished, we have proven nothing but your patience and your courtesy.

Statistics prove nothing, or anything. Patients have carried devitalized teeth for years and years without bodily injury (?) but—here comes the big factor. The patient who comes to the radiologist for films of the tooth roots is generally sent by his dentist or physician. The latter is seeking for the cause of trouble that exists elsewhere in the body.

Let me illustrate this by a statement made by my father, who was a busy dentist. "In thirty years at the chair I have seen *two* perfect sets of teeth," said he. Naturally, a person whose teeth were not decayed and that were giving no trouble, would not (in those days) think of bringing his teeth to the dentist. Nevertheless, two

such cases strayed into my father's office during his thirty years of practice.

Now then, almost ten-tenths of the patients who report to us for dental radiology are seeking relief from sickness. In many instances, the body and its appendages have been carefully searched for other foci and the teeth are the "dernier cri."

Like all other innovations, the "abscessed teeth" propaganda has been pushed beyond the logical limit. Due to misinterpreting the shadows cast by (1) the anterior palatine canal, (2) the inferior mental foramen, (3) the nasal opening of Highmore's antrum, many vital and unoffending teeth have been sacrificed. Personally I believe that an even greater harm has been done in overlooking diseased teeth, and in which cases the diseases have gone on and on and on.

I am not so wild as to suggest the removal of the permanent denture so soon as they have assumed their places in the mandibles in order to forefend the "it-es" that may find being in the body at a later date; this is laughable; but it would seem that only a dampfool would refuse to accept the new order of things, after the multitude of proofs that have been submitted. It seems that the pendulum has not yet reached the end of its swing, for scarcely is there a medical journal issued that contains no reference to focal infections from teeth roots.

The real remedy has not yet been suggested. The genuine cure lies in the mouths of school children. Dental inspections have accomplished much, but the compulsory cleaning of the teeth of young school children by competent and careful dentists, yearly, during school age, plus the daily use of tooth brushes, has accomplished wonders wherever it has been tried.

The man who expects to reform the adult mouth when it is adult might well go about the country, turning oil wells inside out and selling them for wireless masts.

The adult remedy for this generation is, "Don't let your teeth ache." A tooth that aches or has ached is best conquered by extraction. Visit your dentist each six months and have your teeth carefully examined for defects.

Quoting from Dr. H. Darling in *American Medicine*: "Tooth extraction should be more generally prescribed. At present no other method

for the cure of dental abscesses can be guaranteed to remove the focus of infection that leads or may lead to systemic disease."

Quoting from a personal letter from Dr. Gardner of the "Mayo" Clinic: "We have come to the conclusion some time ago that all teeth showing definite pathology should be sacrificed."

Quoting from a personal letter from Dr. Josef Norvitzky of San Francisco, a dentist who has done a wonderful amount of work concerning apical pathology: "*A microscopic diagnosis of myelitis has been obtained in every case from tissues apical to dead teeth.*"

"A microscopic diagnosis of osteomyelitis is commonly obtainable."

Did you ever ask yourself why a devitalized (dead) tooth does not drop out or work its way toward the surface?

My old friend Norvitzky answers that one, too.

"Such a tooth is not exfoliated as a sequestrum because of the deposition of cementum on its roots from the specialized cells of the dental socket. This deposition is excessive, and after some time the pulpless tooth is commonly found ankylosed, the normal tooth joint being partially obliterated. Boiled teeth that I have replanted, removed and examined, showed new cementum deposited on the dead boiled root.

"The dental viewpoint that the tooth is not dead until the cementum on its root and the pericemental tissues are also dead, will not bear investigation."

Just to prove that "the world do move," I quote from a recent issue of the *National Dental Association Journal*; on page 258 in an article by Doctor Grives we find "seven per cent of all root canal filling is perfect: 41.5 per cent of these teeth are apically diseased." (In fine, three of the seven root canals that are perfectly filled are diseased, by the confession of a dentist.) That means that 4 in 100 devitalized teeth do not show upon casual examination that disease is present at the apex. Bright prospect for devitalization, is it not?

His recapitulation is as follows: "The operator who proceeds to devitalize in spite of these facts assumes a reparative skill more potent than the human body possesses . . . The dentist presumes at a glance and a few routine questions to determine matters which might keep hospital laboratories busy for days."

And we are very glad to see the dental profession awakening to their responsibilities. Then comes the great question, "*Are we awake to ours?*"

THE NOSE, THROAT AND EAR AS FOCI OF INFECTION*

M. W. BRUCKER, M. D.

CHICAGO

By a focus of infection we understand a circumscribed infected area or lesion from which the infection is propagated to regional or distant organs. Such a focus may be acute or chronic in its nature, depending upon the primary agent of infection. In the head such foci of infection arise generally when there is some mechanical obstruction to natural channels of drainage. It is the chronic focus of infection which in the long run is responsible for thousands of cases of systemic disorders which until recently were usually not supposed connected with such a focus.

Under focal infection in the head, we include infection of the tonsils, including all lymphoid tissue in Waldeyer's ring, teeth, gums, nasal accessory sinuses, middle ear, mastoid, and lateral sinuses, in fact, all cavities communicating with the mouth, nose or nasopharynx are included. Consensus of opinion gives the tonsils first rank in importance as foci of disease; then follow the teeth, with the nasal accessory sinuses and middle ear coming in for third and fourth place.

A chronic mastoiditis may also be of importance in the etiology and certainly in the prognosis of some of the usual digestive cardio-vascular and renal disturbances observed in general practice.

Pathology and Diagnosis. The determination of the definite focus of infection from which has issued the pathogenic agent in any individual case of focal infection must depend 1. Upon a knowledge of the organism usually causing such disease, and of its possible sources; 2. upon careful examination of those possible sources, and 3. upon a very thorough history of the case. We cannot emphasize too strongly the necessity for repeated examinations, observations under hospital management, carefully taken temperature records, skiagraphs, and the aid of skilled specialists and competent laboratory personnel. It

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may be of advantage, therefore, to consider at this time the pathology and diagnosis of various foci of infection.

Tonsils, Nasal Sinuses, etc. The size of the tonsils, especially in children, is no indication of their guilt or innocence as foci of infection. Undue redness, or bluish redness of one tonsil, part of a tonsil, or tonsil and pillar, with swelling of the pillar, may lead one to consider them actual or possible sources of systemic disease. This localized redness may be associated with demonstrable pus in a crypt of the tonsil or in a pocket between pillar and tonsil, usually at the upper pole. If the pillar is drawn from over the tonsil, or away from it, by a flat retractor or tongue depressor, and pressure is made upon the lower portion of the tonsil, a few drops of thin, dirty gray or brown pus may suddenly appear from its hidden recess and trickle down over the surface of the tonsil. This type of pus most frequently yields a pure culture of streptococcus. There may be a history of sore throat, sometimes with a sharp, sticking pain in the tonsil region. Yellow creamy pus more often yields staphylococcus, and the white or yellowish thick plugs of cheesy consistency so often found in tonsillar crypts are usually not of pathogenic significance. The last named condition undoubtedly favors invasion by pathogenic bacteria, and also accounts for many offensive breaths (popularly attributed to stomach, liver, or constipation). The small tonsil, with smooth, innocent exterior and giving no history of sore throat, may hold abscesses within. The submerged tonsil, covered by more or less adherent pillars, is more likely to be the seat of a focus infection than the large, well exposed, isolated tonsil.

Another type of offending tonsil is found in a throat diffusely red and rough, and where furrows in tonsils or pharynx are filled by a thick, tenacious, purulent mucus. Gagging is very easily provoked. There is a hacking cough and frequent clearing of the throat, especially in the morning. The stumps of guillotined tonsils, and tonsils at some time the seat of acute abscesses (quinsy), often hold chronic abscesses confined beneath the inflammatory or operative scars. Any of these conditions of confined pyogenic infection of the tonsil may reveal a mild, daily fever and it is important to remember that the reverse also

holds true—a mild obscure fever may be due to chronic infection in the tonsil.

As already indicated, various bacteria may be found in the tonsillar foci of infection—streptococcus of different types, pneumococcus, *Bacillus diphtheriae*, pseudodiphtheriae, tuberculosis and even endamebae. Cultures made from the surface of the tonsils obviously yields a variety of saprophytes. D. J. Davis made cultures from the depths of the crypts of 150 pairs of tonsils removed from persons suffering from arthritis and found the streptococcus hemolyticus or streptococcus viridans largely predominating, or in pure culture, in all but two, and in those two the staphylococcus.

Adenoids are most frequently enlarged in children. Foci of infection are not so often demonstrated within them, but it is well known that they may be an etiologic factor in infections of the middle ear and accessory nasal sinuses. They predispose to frequent colds and sore throats, and interfere with proper respiratory ventilation by obstructing the nares. The diagnosis of adenoids is a matter of common knowledge.

As has very frequently been pointed out, the lymphoid tissues of the tonsillar crypts form a selective breeding focus for bacteria. The lymphatics of the tonsil drain into the so-called tonsillar gland of the deep cervical chain situated under the sterno-cleido-mastoid muscle and thence to the thoracic gland and duct. Lymphoid substances appear to reach two maxima of distribution in the body; one in the throat and the other in the ileo-cecal and appendicular region. These are the two great distributing points for the propagation of destructive micro-organisms throughout the system. But nature has provided for the contingency by a large distribution of plasma cells in these vicinities, and in the normal tonsil the microbic flora is usually restricted. In the pathological tonsil the streptococcus hemolyticus is almost constantly found and this is one source from which these organisms spread into the throat and adjacent structure. The fact that the organisms found usually in the pathological tonsil are the same as the infecting agents found in serious systemic infections, pneumonias, arthrites, etc., should not, however, be too readily accepted as proving that these systemic infections arise primarily from the tonsil.

Anatomically it is easy to understand how bac-

teria can spread through all the cavities communicating with the mouth, nose, or nasopharynx. They may also spread from the tonsillar crypts, to adjacent mucous surfaces, descend into the bronchi and lungs and enter the blood stream. Reyfuss and Smithies have shown that the stomach and the intestine can become infected by deglutition of infected secretions from tonsils, sinuses and teeth. The lymphatic glands can also easily be invaded.

Whatever may be the source of a tonsillitis or nasopharyngitis, whether such a lesion be primary or secondary, most writers admit that it is an easy matter for the cervical glands to become infected and as a result produce changes which render the glands less resistant to the passage of organisms into the blood stream. The infection of the cervical glands is a very important point in connection with the spread of tubercular infection, and Crowe, Walkins and Rothholz after thorough study are of the opinion that tonsils and adenoids are generally to be accused in cases of swollen cervical glands. They think that tonsils and adenoids should always be removed whenever there is any hyperplasia of the cervical glands that is not due to lues, new growths, any of the blood diseases, or systemic glandular enlargement.

The nasopharynx, however, has not received too much attention as a source of infection. In breathing with normal nasal passages but few if any organisms can enter the nose from outside or reach the nasopharynx in a visible state. If, however, there is a partial nasal obstruction due to a stoppage or retention of the flow of the secretion; or if there is infected discharge from the eye, or accessory sinuses or middle ear, all of which can very easily occur, then the nasopharynx, pharynx, tonsils and larynx are constantly bathed in a discharge that contains bacteria, and may act as centers of propagation to the internal system.

The ethmoidal labyrinth is excellently situated as a focus of infection, the nose is constantly exposed to infection and the ethmoid cells are so situated that they become very readily involved by extension of any nasal infection. Such a focus can easily escape detection and in searching for a focus it may at times be necessary to make an exploratory operation.

Very little attention has been given to the ear

as a focus of infection. In the ear there is some kind of drainage by which infected matter from a suppurative source can escape; it is not a closed cavity; but such a thing as a blind abscess of the ear can occur. Tilderquist reported a case of rheumatism and meningitis traced to such an origin. In this case there was a hard sclerosed mastoid and no discharge. The middle ear and mastoid are usually invaded directly from the nasopharynx or from the blood stream.

Headaches and other symptoms are sudden in their onset and there may be but little pus on opening the drum.

A chronically suppurative ear may be kept in that state by infected tonsils or sinuses.

When continuous infection is judged to be the cause of a systemic condition the primary focus should be searched for. It should be remembered that infection of the tonsils, sinuses, or nasopharynx may be secondary; also when the cervical glands are affected treatment of the primary focus alone will not always suffice. The primary focus when found must be radically dealt with. An infected accessory sinus should be thoroughly drained and in many cases the chronically infected mucosa lining the sinus should be removed; radical surgical measures must also be resorted to if necessary to control a chronic otorrhea.

It is not within the province of this paper to refer to the renal, muscular, vascular and joint lesions which result from systemic involvement due to focal infections. Suffice it to say that infectious and rheumatoid arthritis, myalgia, nephritis, chorea, endocarditis, osteitis, neuritis, arterio-sclerosis, etc., as well as local conditions, such as conjunctivitis, uveitis, iritis, etc., have been directly traced to foci of infection occurring in the head. In looking for a cause, however, one should never be blind to the fact that syphilis or tuberculosis may be the prime cause of several secondary conditions.

When a tonsillectomy is done it should be radical. An incomplete tonsillectomy renders the patient more liable to secondary systemic disorders, because by narrowing the orifices of the crypts of the portion left behind and covering them with scar tissue the conditions are mechanically rendered more favorable for a general infection. No portion of the tonsillar capsule should be left behind, otherwise one of the prin-

cial objects for which the operation was done has not been effected.

Many cases of this kind were observed where a tonsillectomy failed to check infection.

FOCAL INFECTIONS FROM THE SURGICAL STANDPOINT*

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To one who studies the medical literature, thoroughly and conscientiously, it is interesting to observe how slow and steady is the progress in medical and surgical knowledge. There are no sudden jumps in the forward progress. One may look back over the literature of three months and wrongly conclude that there has been no progress, but on looking back over the period of a year, a considerable addition to the general knowledge may be observed.

Something new may appear in an article concerning diagnosis, practice, or technique but it is not accepted at once by the entire profession. It is noted and the suggestions in it are tried out by observers over the country. The results of these observers are published and if they, or a majority of them, coincide with the original paper it is finally accepted by the entire profession and finds its way into the books as a valuable addition to medical knowledge. While this is going on other new points are being suggested for trial, and thus the progress is steadily forward, but seemingly slow and almost imperceptible.

The above is true concerning focal infections. For a great many years past it has been known that pathogenic germs circulated in the blood. The existence of a felon was self-evident proof. Infection of a bony phalanx of a finger with no wound in the skin, was indirect proof that the source of infection was from within the body. It remained for Rosenow and Billings and others to work out the facts concerning these infections derived from micro-organisms in the blood stream and lymph channels, and supply the positive proof.

In the development of the subject some errors were bound to occur. For instance, Billings on page two of his wonderful and epoch-making little book on "Focal Infection" says: "Listerism—antiseptic surgery—was of rapid growth and in

its evolutionary form as applied today makes general sepsis in surgery and midwifery a criminal offense due to ignorance, carelessness, or faulty technic." I do not believe that a surgeon would have used exactly that language, or would have stated it in just that way, for at least two obvious reasons. Further along in his book, Billings says on page seventeen: "It is known that physical and mental exhaustion, starvation, exposure to cold, debility from alcoholic dissipation, the misuse of narcotic drugs and exhausting general disease may reduce the natural resistance." Surely "physical and mental exhaustion" sometimes follows a case of midwifery. The worst example of puerperal infection I ever saw occurred in a case of childbirth in which the child was born before the medical attendant arrived, and the placenta was expressed by simple pressure on the abdomen. The vagina was not touched.

It is also reasonable to suppose that the anesthesia and shock of a major operation lowers the resistance of the patient, to any pathogenic germs he may be harboring in a focus of infection. I am not trying to minimize the awful responsibility of the surgeon and obstetrician to see that no germs are carried in from without, but it is surely not fair in the light of recent discoveries regarding focal infections to say that "general sepsis in surgery or midwifery" is always a "criminal offense due to ignorance, carelessness or faulty technic."

In looking over the program I was a little undecided as to just how much territory a general surgeon was expected to take in in the subject assigned to me. I finally decided that a general surgeon was in the same position as the general practitioner. He is expected to accept gratefully anything that is left after the specialists are through. I sincerely hope that I will not encroach on any ground that rightfully belongs to Doctor Bentley, Doctor Kretchmer, and Doctor Brucker. This will be easier because the surgeons in Peoria, who are limiting their work to surgery, do not pull teeth or enucleate tonsils.

Foci of infection may be primary or secondary and a secondary focus may become in time a primary focus when it gives off germs that infect other tissues or organs. Early in the investigation of the subject it was definitely proved that ulcers of the duodenum and stomach, cholecystitis, appendicitis, and osteomyelitis were fre-

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quently, if not always, secondary infections from a primary focus. It was also shown that in these secondary infections the micro-organisms may undergo changes and find their way into the blood stream and infect other organs or tissues and thus become primary foci. For this reason it becomes as necessary to remove secondary foci of infection as to remove primary foci.

Rosenow's discovery of specific tissue affinity in which a specific strain of a germ has a special affinity for a certain organ, seems to lessen the importance of a *locus minoris resistentia* so much written about by the older authors.

There has been so much written about the teeth and tonsils as primary foci of infection that it is well to bear in mind that *any* focus of infection in the body such as infected nasal sinuses or a rectal fistula, may be a primary focus to some other infection.

The fact that foci of infection should be removed surgically when possible, sheds light on a number of surgical problems and makes their solution easier. For instance, ulcers of the stomach or duodenum should be removed, when the situation of the ulcer renders it possible. The ulcer may be excised, or destroyed by the cautery method of Balfour. In ulcers of the stomach, where it is sometimes practically impossible to say whether malignancy has become supervened on the ulcer, it would seem better to widely excise, than to attempt destruction of the ulcer proper with cautery. A recent experience in which an ulcer of the stomach gave no clinical or ocular evidence of malignancy, and was cauterized, and was promptly followed by recurrent malignancy in the stomach and abdominal incision, leads me to believe that ulcers of the stomach should be widely excised rather than cauterized. The excision at least gives the opportunity for microscopical examination, and may possibly give the surgeon a much desired opportunity to guard his prognosis.

The discoveries regarding focal infections surely practically settles the question as to whether the infected gall-bladder should be removed or drained. As focal infections should be removed surgically when possible, it is clearly correct to remove the infected gall-bladder. Drainage of an infected gall-bladder through the top of the fundus for a few days will not per-

manently relieve the infection, and the gall-bladder should be removed.

An infected appendix should be removed when discovered, unless there is raging an acute peritonitis at that time. I have no desire to start anew an old discussion, but as the removal of the appendix will have no effect on a spreading peritonitis, except to lower the patient's resistance by the shock of the operation and the anesthetic, why remove it at that particular time? Every one will admit that the patient with an acute peritonitis needs all the resistance he has and can possibly get. The fact that some patients with acute peritonitis get well in spite of the removal of the appendix, is no particular argument for its removal during that critical time.

One paragraph in Billings' work on "Focal Infections" can be slightly paraphrased to suit this condition. He says: "In acute rheumatic fever associated with endocarditis, pericarditis or a pancarditis, the serious condition of the patient usually contra-indicates tonsillectomy for the removal of the most general etiologic focus. Experience teaches that the removal of the tonsils during an attack of acute rheumatic fever usually does not modify the clinical course. It is the better practice to remove the focal cause, wherever it may be, in the late convalescence." I say, in acute peritonitis the serious condition of the patient usually contra-indicates appendectomy, even though the appendix be the etiologic focus. Experience teaches that the removal of the appendix during an attack of acute peritonitis usually does not modify the clinical course. It is the better practice to remove the focal cause in the late convalescence.

In osteomyelitis it is not practicable or possible, usually, to remove the entire infected bone. We have learned to leave no bony cavity to retain and harbor the chronic infection. It is better to remove the bone overlying the infected area, and fill the shallow trough with soft tissues.

In light of the present information on focal infections it is well to always keep in mind the possibility of infection from within the body through the blood or lymphatic channels even though there is an avenue for infection from without. As no gynecologist has been placed in this symposium perhaps I may be permitted to say that infected tubes are not always evidence of a female's lack of chastity. It is possible for

her tubes to receive their infection from a focus in her own body, and not necessarily from the body of a partner.

In conclusion I believe that the discoveries of Rosenow on the specific affinity of certain germs will make it necessary for the qualified surgeon of the future to have his clinical laboratory thoroughly equipped for the cultivation and study of this peculiar property of micro-organisms.

THE ROLE OF FOCAL INFECTIONS ON THE NERVOUS SYSTEM.*

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CHICAGO.

It is not the intention in this short paper to bring out any point particularly new or startling, but more to call your attention to facts as they are recognized at present.

There is no doubt but that the focal infection fad is being overplayed, but there also is no doubt some pathological changes in the nervous system are due to a focus of infection in some other part of the body.

I believe the subject should be considered from two angles, first, the etiological and, second, the associated.

On considering the first we will take up those diseases that undoubtedly are due to a focus of infection in some other part of the body. Chief and most common of these is chorea. While it is true many children who later develop chorea have inherited an unstable nervous system, it is not true in all cases by any means; I have in mind a number of cases of chorea in which for the first several years of the child's life, they were as nearly normal as could be asked, and in whom there was a normal heritage, but in whom after a more or less severe local infection, usually of the tonsils, there was developed a choreic condition within ten days to three weeks. I believe that in chorea, just as in other disease due to infection, there is a marked difference in the virulence in some cases over others, also that some children have a far greater resistive power than others.

Multiple Neuritis. While not nearly all cases of multiple neuritis can be traced to a local infection, it is certainly recognized that all cases

are due to a toxemia of some sort. Perhaps the most common or at least best known type is that due to a diphtheretic infection. Here, however, as in the poisonings due to alcohol, arsenic and lead, the question will be raised whether that is not systemic instead of a focal infection. However, I have in mind a most severe case of multiple neuritis, in which case the trouble began in the lower extremities, gradually ascending, simulating an ascending myelitis. Paralysis of the lower extremities became complete. After removal of tonsils and a few teeth the trouble gradually improved, so that he became able to walk with aid of a cane, going up and down stairs, and getting about without very great difficulty.

Neuralgia. While the question of proof is somewhat doubtful in some cases of neuralgia, there is some evidence that herpes zoster and some other forms of painful nerve are due to a secondary inflammatory process involving the posterior root ganglia.

Multiple Sclerosis. For the past 25 years it has been recognized that the symptoms of multiple sclerosis very frequently follow acute infections; more rarely it has been traced to chronic focal infections. Stearns in a paper last May quotes Woodbury, who has reported six cases of such character, and all showed marked improvement following the clearing out of the local infection.

Myelitis. Aside from syphilis and tuberculosis the great majority of cases of myelitis follow acute infections accompanied by exposure.

In considering the mental phase due to focal infection I prefer to refer you to the work of Cotton and his associates at the New Jersey State Hospital. During the past five years they have studied very extensively their cases, looking particularly for local infections. Teeth and tonsils, x-raying, and where the film showed unerupted 3rd molars they were extracted. The results they have obtained certainly justify the general practitioner to examine very carefully for local foci of infection in every case that shows any deviation from the normal, in mental health. Cotton's cases were not limited to any one mental disease, but he makes the bold statement that every case diagnosed as a functional mental trouble is due to a focal infection some place in the body, and that all you have to do to cure your

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case is to find the focus of infection and remove it.

His results were not so good on old chronic mental cases, and no one would expect results where an infection has existed long enough to produce organic changes in the brain.

Dementia Præcox. In mentioning dementia præcox in this paper I realize full well the criticism that it probably will raise, but to my mind the principal etiologic factor is one of infection, or toxemia of some infection. Where the focus of this infection lies, I am not prepared to say, but it is more likely to be from the intestinal tract than any other source. My hypothesis is based on two reasons: first, practically every case of præcox and at least every case of the catatonic type which I have seen early has carried a temperature, increased pulse; secondly, sixty per cent. of the cases of præcox will recover if foreign protein is introduced into the body sufficient to cause reaction to overcome the initial infection before marked organic changes have taken place in the central nervous system.

I believe a thorough abdominal examination should be made on all mental cases, including Barium meals and enema and fluoroscopy, in those cases that are quiet and docile enough to aid in the examination. If a surgical condition is found it should be remedied by surgical means. I hope to see in the near future our state institutions thoroughly equipped surgically. Dr. Bayard Holmes has demonstrated on a number of cases that by irrigating the colon, cleaning it out thoroughly, that recoveries take place in the early cases.

I believe that many cases also of maniac depressive insanity and some melancholia are amenable to the same treatment.

In fact, all cases of mental or nervous trouble that show a high indican percentage, should have treatment directed to clearing the bowel of infectious matter. I am not prepared to say what method of treatment is the best, whether establishing a fistula and daily irrigations, or some internal treatment which is necessarily slower, and perhaps not so efficient, but which, perhaps, if persisted in, could work great improvement.

Confusional States. It is not uncommon to meet with individuals who suffer from marked states of confusion up to the point of mania, that upon eradicating middle ear or mastoid infection,

or occasionally frontal or ethmoid sinus infections, clear up almost immediately.

Associated Infections. Whatever disease of the nervous system an individual may be suffering from, let there be added a focal infection anywhere else in the body, the nervous disease is bound to become worse, the patient weaker, and many times a death is hastened.

(DISCUSSION ON PAPERS ON FOCAL INFECTION)

Dr. Thomas L. Gilmer, Chicago, is convinced that dental abscesses are rarely primary abscesses but that they are generally secondary to infection in some other part of the body.

It is not an uncommon thing for an abscess to develop at the apex of the root of a tooth which is not decayed. For some reason the pulp in such a tooth dies, probably as a result of primary infection in some other part of the body, the bacteria having passed from the primary focus through the blood and lymph streams into the pulp tissue. Since germs cannot pass through sound tooth structures, one must conclude that the infection at the end of a root of such a tooth is secondary to an infection in some other part of the body.

Teeth having well filled cavities with root canals, also well filled, do not universally become abscessed, but they occasionally do, and in such cases it is hardly probable that the pyogenic organisms reach the apex of such a tooth through the root canal.

When a tooth is decayed and its pulp exposed, the pulp becomes inflamed and dies. Immediately the saprophytic bacteria of the mouth commence the work of disintegrating the dead pulp tissue. During the process of disintegration toxic elements are formed, which pass out through the apical foramen of the root, but it does not cause infection in the periapical region, but it does cause injury to the tissues, which lowers their vitality. Later if pyogenic organisms reach this area through the blood or lymph streams, an alveolar abscess may result.

The bacterium of acute alveolar abscess is the streptococcus hemolyticus. In the chronic abscess, the viridens are found. It is not likely that either of these pyogenic organisms can live long in the toxic material in septic root canals formed there as a result of the action of these saprophytes on the dead pulp. Such poisons even destroy the organisms that produce them. It would not seem probable that pathogenic organisms would find the poisonous contents of a root canal a good medium for their growth and multiplication.

A green forming streptococcus is a natural habitat of the mouth and septic pulpless teeth; they are supposed to be saprophytes. Are these the same organisms with morphological changes found in chronic alveolar abscesses? He does not feel sure that they are.

And if alveolar abscess is secondary, then we must know that other infected areas in the body exist,

for to remove an abscess of the jaw without discovering removing the other or primary focus, would be to do only half the work. This may account for the fact that we have so many discouraging failures following the removal of oral infection only.

To focus one's attention too exclusively on the teeth and jaws, regardless of other parts of the body, is shortsighted, misleading and harmful in many instances.

An opinion was expressed recently by one of the essayists of today and published in the last number of the *ILLINOIS MEDICAL JOURNAL* (May, 1921) that "a devitalized tooth is a foreign body in its alveolus." He said farther, "once the nerve had died, the tooth receives no nourishment as the pericemental membrane is structureless." He gives as his authority Noyes, Black and others.

What the gentlemen referred to is not the pericemental membrane but the cementum. In neither case was he correct, however. In the first place, the pericemental membrane, or as it is more commonly termed, the peridental membrane, is a highly complex tissue in its organization, composed of numerous blood vessels, nerves and a complete glandular system. If he refers to the cementum, then likewise he was incorrect in his conclusions and also in his quotation. Noyes¹ says in his book on this subject:

"Structurally the cementum is more closely related to the subperiosteal bone than any other tissue, the only differences being that in general the lacunae in bone are much more uniform in size, shape, arrangement of the canaliculi, and their position with reference to the lamellae than those in cementum. In bone the lacunae are usually found between the lamellae. In cementum the lacunae may be between the lamellae, but they are more often enclosed within their substance and they are found most often where the lamellae are thick.

"Some writers have described Haversian canals in the cementum, but the author has never seen anything that could properly be called an Haversian canal in the cementum from human teeth. Canals containing bloodvessels are not uncommon, but in these the lamellae are never arranged concentrically around the canal, as they are in Haversian systems."

Had the gentleman had these books at hand, so that he could have read them carefully, he would not have been led astray. What Black said was this, in regard to the cementum: "that red blood did not circulate in it," but you observe that Noyes says it does (and his is a much more recent work than Black's); that the cementum contains numerous blood vessels; but let us suppose that the cementum has not the identical regulation bone formation; that it does not have red blood circulating in it, nevertheless we know that it is a live tissue, even though the pulp be dead, which is only the formative organ of the dentin, and we know that in order to be a live tissue, it must have nutrient material passing through it. The cornea has no blood vessels except where super-

ficially placed in its periphery, but has lymph spaces through which nutrient material flows. The same is true of cartilage.

The same gentleman made the statement at that time that all "dead teeth" (pulpless teeth) show traces of destruction at their apices. This may be said to be true of other parts of the body which have been injured, there is generally some loss of tissue. This is granted unless there has been treatment. In thousands of instances the disinfection and filling of the root canals has caused abscesses of considerable size to completely disappear, so far as the radiograph is able to detect, the space formerly occupied by the abscess having been completely filled in with good bone tissue, and in some instances where teeth have been removed that had been abscessed and cured, no apical infection has been found and the microscope has shown, in some instances, that the cementum had grown over the end of the root and completely enveloped it.

It is very difficult and requires an excellent technique to secure uncontaminated specimens from the apex of a tooth, but it can be done, and in those cases where specimens have been taken from the apices of the root of pulpless teeth which had the appearance of having been cured in alveolar abscesses and infection found, the chances are that the specimens were contaminated in the gathering. In several instances² he has exposed, under proper precautions, the apices of the roots of teeth which had been abscessed and cured, and the cultures were negative.

Experience compels him to believe that infected teeth, whether abscessed or affected with pyorrhea, are a danger to man, but let us not remove uninfected teeth simply because their pulps are dead, forgetting real infection elsewhere in the body.

Dr. J. R. Ballenger, Chicago, finds the diagnosis of the source of focal infection most difficult and has seen many mistakes made along this line. One case was that of a bed-ridden patient from a rheumatic affection supposed to come from the teeth, but it was found that one of the sinuses caused the trouble.

In some people who have had their teeth removed and other sources of infection eradicated, this so-called pain or "bad feeling" around a muscle or joint has been due to neurotic conditions.

Dr. T. J. Williams, Chicago: When we recall that this subject did not receive its proper consideration until some ten years ago, when our eminent Billings and his collaborators presented the profession with their admirable work on focal infections, thereby opening the gates to other earnest and conscientious workers who have since delved into some of the various veins of this mine which had heretofore hidden so many important things now the better understood, it is a matter of much pride to the profession of America that we have members who have achieved so much in this one short decade. In fact, one cannot help but wonder, at times, if we have not taken so much pride in it that we have a tendency

1. Noyes: *Dental Histology and Embryology*, page 153.

to attribute rather more to focal infection than we really should.

With the exception of the very few foreign substances such as organisms, or chemicals that might gain entrance into the body through abrasions or cutaneous absorption, we can truthfully say that everything—food, fluids, air and all organisms enter through the portals of the head. This, then, is the reason why we find the head, especially the ear, nose and throat, and the mouth, the great source of all focal infections. Nature recognizes this and has elaborately provided for it by the special histological construction of the mucosa of the mouth, the throat and the upper respiratory tract, by the specialized epithelial structures of flint-like hardness mortised in grooves of bone and protected with cemented dental periosteum as the teeth are, and fearful lest this might not even suffice, we find scattered all about the thick carpet of lymphoid structure, into the folds of which millions of organisms fall daily and are forever consumed.

And so we find ourselves pondering the great problems of immune bodies, of toxins and antitoxins, of phalaxis and anaphalaxis. Thus, we find that we have but touched a few of the veins in the mine discovered for us by our pioneers into research.

Dr. Jesse P. Simpson, Palmer, Illinois, believes many people develop chronic invalidism after acute infections, due to remaining focal infections. We all recall the Irishman, who after his first experience with the influenza said that "Oi was sick for three weeks after Oi got well." He doubtless had a focal infection—acute pericarditis with effusion, nephritis or what not.

He recently saw an ex-soldier in his fourth attack of appendicitis and sixteen days later removed the appendix, and the boy has grown so large in three months that his last year's clothing does not fit. We had here a focal infection for nine months that kept his general health below par.

In his early experience one of these cases developed a metastatic abscess in the lung about the tenth day, but was soon up and about. We had planned an operation, but he put it off for six months, or until the beginning of a second attack. The appendix was found to be tuberculous and he died of pulmonary tuberculosis two years later, although recovering and regaining his normal weight soon after operation. We certainly should not wait long in this class of focal infections.

Dr. S. M. Miller, Peoria, noted that it has not infrequently occurred that in the course of a routine examination, we have found absorption of bone at the roots of the teeth demonstrated by the x-ray, in cases in which there is no clinical evidence of trouble locally and no evidence of infection in other parts of the body, although such teeth have been filled or crowned for years. It is a question in my mind whether such teeth should be sacrificed in the absence of evidence of active infection there or elsewhere.

Do these teeth harbor an infection which is latent and which may light up at some future time when the resistance of the patient is lessened, or are they sterile? His own inclination is toward conservatism; in the absence of definite clinical evidence of infection either locally or elsewhere, such as arthritis, or cholecystitis, etc., he feels that these teeth should be left, but time will tell whether they should be removed or not.

Another consideration is the question, if the infection be present and latent, as to whether there may be absorption from these foci which may cause degeneration of heart muscle, arteries, kidneys, or other organs, with a final increase of arterial tension arteriosclerosis, myocarditis or chronic kidney lesion resulting.

He has seen a number of cases of arthritis, particularly of the shoulder, following trauma, usually a contusion from a fall, which did not clear up, but which were followed by definite arthritis with pain, limitation of motion, crepitus and tenderness in the joint. These cases were associated with foci of infection usually of the teeth and they cleared up definitely within a few weeks after the infection in the teeth has been eradicated. The infection simply has sought a point of lessened resistance resulting from trauma.

The point is, that in arthritis which persisted after the injury, foci of infection should be searched for.

Dr. S. E. Munson, Springfield, emphasized the importance of the dentist and the physician working together, not forgetting the technician in the diagnostic group. He believes the dentists are going to have to associate with physicians more closely and not take a stand in regard to focal infection unless they prepare themselves in a definite way, and have a laboratory in their office where blood and urine examinations can be made and other clinical observations which will tell them more about focal infections. In noting his case record at examination of patient if there are any crowned or bridged teeth they are so mentioned on the record.

If he has good films of his patient's teeth and telephones to a dentist to look them over the dentist will be more careful in his examination. There may be a few exceptions, but in our cases we have had permanent benefit because we have looked the cases over carefully and when we have found anything else we have kept the patient under observation. If the patient makes only one visit how will you know where the infection arises? A woman who had slight vertigo walked half a block and after the vertigo disappeared she realized where she was. She had a myocarditis which was the cause of her vertigo, and with the removal of one abscessed tooth the heart improved very rapidly and during a period of three years' observation she had no difficulty from the vertigo. These are all simple, and should not escape our observation.

SUCH THINGS CRY ALOUD FOR INVESTIGATION FOR THE WELFARE OF OUR GREAT COUNTRY

NARCOTIC DRUG ADDICTION*

LESTER D. VOLK, M. D.

CONGRESSMAN,

BROOKLYN, N. Y.

Mr. VOLK. Mr. Speaker, House resolution No. 258, providing for a select committee to inquire into the subject of narcotic addiction in the United States, which was referred to the Committee on Rules on January 4, 1922, reads as follows:

WHEREAS, Competent medical and administrative authorities estimate that between 1,000,000 and 2,000,000 persons in the United States are victims of narcotic-drug addiction, and many of these unfortunates are ex-soldiers, ex-sailors, and ex-marines, members of the American Expeditionary Forces in the late World War, and the situation arising from the existence of so large a number of narcotic-drug users has created a menace to the physical and moral welfare of the citizens of the United States; and

WHEREAS, This condition of affairs has been complicated and aggravated by administration of existing narcotic laws in the various States and of the Harrison narcotic law by the Federal Government, and many of the rulings of the Federal Government and the provisions of State narcotic laws and sanitary codes of municipalities of the United States, point to an organized conspiracy on the part of certain administrators and physicians to drive narcotic-drug addicts into established sanitarium purporting to treat and cure narcotic-drug addicts; and

WHEREAS, This conspiracy has taken the course of rulings, provisions, and regulations by the Federal prohibition commissioner at Washington, acting for the Internal Revenue Department of the Treasury Department in the matter of narcotic control, and by the passage of statutes by various State legislatures and the regulation of narcotic drug distribution by various boards of health of various municipalities of the United States, which are contrary to existing medical bibliography, clinical and pathological research, and the best medical and lay experience in the handling of addict patients; and

WHEREAS, The said medical bibliography, clinical, and pathological research, ignored in the administration of Federal, State, and municipal statutes, rules, and regulations, set forth conclusive scientific proof of grave physical reactions in the body of an addict deprived of opium derivatives, re-

sulting in acute discomfort, collapse, and sometimes death; and pathological research shows changes in blood analyses in different stages of the withdrawal of narcotic drugs from addict patients, duplicating in every particular the phenomena evidenced in cases of acute infection and commonly recognized as disease symptoms; and medical records exist that serums extracted from the blood of animals in drug withdrawal has produced the complete symptomatology of drug withdrawal when administered to unaddicted animals of the same breed; and medical history, current and foreign, reports scores of cases of congenital addiction (that is, addiction at birth), and scores of deaths as the result of improper withdrawal of drugs; and

WHEREAS, All of these known facts have been ignored in the administration of the Harrison narcotic law and in the administration of various State narcotic statutes and municipal sanitary codes and regulations, by the issuance of rules and regulations making it impossible for the medical profession to treat narcotic-drug addicts without fear of arrest, indictment, and conviction, or interference and persecution by the criminal authorities; and

WHEREAS, Such administration of existing narcotics, Federal, State, and municipal, has resulted in an increase in smuggling, peddling, and illegal distribution of opium and its derivatives, and exaggeration of conditions in the underworld resulting from the existence of a criminal type of addicts; and such administration has resulted also in a virtual monopoly in the treatment of narcotic addict patients by privately owned and operated sanitarium promoting certain routine formulas and cures for narcotic addiction; and it is a recognized fact among competent clinicians that the physical phenomena presented by the addict patients do not lend themselves to treatment by any specific routine treatment; and

WHEREAS, Evasion and ignorance of these facts is rapidly increasing the criminal class of addicts, spreading addiction among the curious, encouraging smuggling, and driving hundreds of thousands of post operative and post war addicts of every walk of life to doubtful cures conducted by charlatans and fakers, and these intolerable conditions, menacing the youth of the Nation and the physical and moral welfare of our citizens can be corrected only by an unbiased and fearless investigation of narcotic addiction conditions in the United States: Therefore be it

RESOLVED, That the Speaker appoint a select committee of 15, and shall include therein all members of the medical profession who are Members of the House, and that such committee be instructed to inquire into the subject of narcotic addiction in the United States, the method of handling these unfortunates, the medical addenda available regarding methods of treatment by private physicians, institutions, and sanitariums, the effectiveness of the present laws, rules, and regulations to control

*Address before the House of Representatives, January 13, 1922.

smuggling, trafficking, and abuse of narcotic drugs, and for the purpose of drafting legislation for the control of narcotic drug addiction.

For such purposes it shall have the power to send for persons, books, and papers, administer oaths, and is authorized to sit during the session or recesses of Congress, at Washington or any other place in the United States, and shall have the right to report at any time.

The expenses of the said investigation shall be paid out of the contingent fund of the House upon vouchers approved by the chairman of the said committee and to be immediately available.

There has developed a tendency in carrying out the objects of the Harrison law to substitute for the provisions of the act arbitrary administrative opinions expressed in rules and regulations which amount to practically a repeal and nullification of the law itself.

These rules and regulations have been promulgated by those in charge of the administration of the Harrison law upon the representation and statements coming as the official pronouncements of the New York City Board of Health, presented by a particular small group or clique among whom stand out prominently the names of Royal S. Copeland, health commissioner of the city of New York, Drs. E. Elliot Harris, S. Dana Hubbard, Alfred C. Prentice, and a lawyer, Alfred C. Greenfield. Reliable records, reports, scientific information, and experience have been swept aside by these men and in their place has been set up a campaign of publicity intended in the end to benefit this small coterie who seek to control the avenues of narcotic treatment throughout the country.

The agitation emanating from New York City from these men and the department of health is spreading over the entire country and knowingly or unknowingly has evaded and ignored sound medical findings. As a substitute for open discussion of known medical facts there has been set up a propaganda for the incarceration of all drug users, their treatment by routine methods, and complete elimination of the family doctor. An undeniable effort is now being made whereby physicians are to be denied any discretion and power in the prescribing of narcotic drugs and to force all those addicted to the use of these drugs into hospitals exploiting questionable "cures."

I charge that this propaganda has been carried on by Dr. Royal S. Copeland, health commissioner of New York City; Dr. S. Dana Hubbard, of the New York City Health Department; and Drs. E. Elliot Harris and Alfred C. Prentice, the last two active in the councils of the New York County Medical Society and the American Medical Association.

I further charge that Arthur D. Greenfield, a lawyer of New York City, has aided and abetted the propaganda above mentioned.

The peculiar personal views of this coterie with

regard to the matter of narcotic drug addiction has found its reflection in a bitter and persistent campaign of agitation carried into the farthestmost States of the Union and looking toward immediate compulsory institutionalization of all addicts. Expression of the peculiar personal views of this coterie have even found their way into the latest regulations, issued October 19, 1921, by the office of the Federal prohibition commissioner over the signature of R. A. Haynes, Prohibition Commissioner, and D. H. Blair, Commissioner of Internal Revenue, as follows:

The ordinary addict: It is well established that the ordinary case of addiction yields to proper treatment and that addicts will remain permanently cured when drug taking is stopped and they are otherwise physically restored to health and strengthened in will power.

This bureau has never sanctioned or approved the so-called reductive ambulatory treatment of addiction, however, for the reason that where the addict controls the dosage he will not be benefited or cured. Medical authorities agree that the treatment of addiction with a view to effecting a cure which makes no provision for confinement while the drug is being withdrawn is a failure, except in a relatively small number of cases where the addict is possessed of a much greater degree of will power than that of the ordinary addict. The good faith of the physician and the bona fides of his treatment in a given case will be established by the facts and circumstances of the case and the consensus of medical opinion with regard thereto, based on the experience of the medical profession in cases of a similar nature.

I charge that the foregoing remarkable presentation of supposed medical principles carries out the spirit and letter of the teachings of the above-named men as exemplified in stenographic records of legislative hearings at Albany, the published writings of these men and their oral pronouncements. Before its appearance as gospel in addiction and its adoption by the Internal Revenue Department, the theories set forth were presented to the Legislature of the State of New York in bills appearing in 1920 and 1921, and were followed as matters of policy in administration of the New York State Department of Drug Control, resulting in the complete breakdown of that arm of the State government, so that it was abolished by the legislature. A later attempt to incorporate these theories in the sanitary code of New York City was defeated by the combined revolt of New York State judges, doctors, and druggists, resulting in the provision that Federal regulations would prevail in the sanitary code with relation to the medical and pharmaceutical professions.

It is interesting to pause for a moment and scan the lists of so-called important medical committees from which have come announcements whose influence has more or less dominated the narcotic

question for the past two years. For example:

1. Committee on narcotics, Council of Health and Education, American Medical Association. There we find Harris and Prentice.

2. Committee on narcotics, New York County Medical Society: Harris, Prentice, Hubbard, and Healy.

3. New York State Department of Drug Control, stated to have been operated under the influence of Harris, Prentice, Hubbard, and Lambert.

4. New York City Department of Health. Narcotic administration directed largely by Hubbard and Copeland.

5. Legislative committee, New York County Medical Society: Harris, Prentice, and Healy.

6. Health committee of greater New York, whose report was printed in the New York State Medical Journal, May, 1920, as an argument in favor of the Cotillo bill: Harris, chairman; Hubbard, Prentice, and Healy reputed to be members of influence.

7. Cotillo and Fearon-Smith bills (New York), stated in print to have been written by Harris and Greenfield.

8. Report of narcotic committee of New York County Medical Society, read by Prentice. Committee: Harris, Prentice, Hubbard, and Healy.

9. Appeared at Albany in support of the above bills: Harris, Hubbard, Prentice, Healy, and Greenfield.

10. Appeared at board of health to advocate municipal code to conform with these bills: Hubbard, Prentice, Healy, Greenfield, etc.

11. Editor of bulletin of department of health, New York City: Hubbard.

12. Said to have been referred to from heads of administration at Washington as men to talk to for narcotic information and rumored to exert great influence with local officers of prohibition and Department of Justice: Harris, Hubbard, Prentice, and Greenfield.

We might go on with this at considerable length, but the above are sufficient examples of the concentrated influence of these few men in important places of authority and announcement.

It would be interesting to discuss the actual qualifications and connections of this interlocking directorate, but time and space would be better utilized in outlining the general subject and leaving these matters of detail to a future investigation.

However, in passing it would be of interest to quote from an editorial in the Illinois Medical Journal, October, 1921, issue, which states:

The present attempted interpretations, and so forth, are based somewhat beyond any doubt upon representations and statements and opinions and conclusions coming from people like Dr. E. Elliot Harris, S. Dana Hubbard, Alfred C. Prentice, the lawyer, Arthur C. Greenfield, etc., and also somewhat from statistics and statements and deductions coming from the New York City board of health.

Their reliability and validity must therefore depend upon the qualifications of these people, as compared with the bulk of recorded workers and men of real experience. We believe that without any question at all their reports and statements and conclusions would be utterly overthrown and discredited by comparison with the bulk of reliable record and report and experience and scientific information.

The report of the committee on legislation of the New York State Medical Society, beginning on page 209 of the June, 1921, issue of the New York State Journal of Medicine, voices mistrust of these narcotic committees and of the "10 men in the medical profession and a couple of lawyers," who have gotten mixed up in this addiction matter.

Again quoting the Illinois Medical Journal, September, 1921, issue:

Who is the Harrison law? * * * The activities of Prentice and his associates have been so persistent and partisan, and of such a character as to lay them open to the charge that they were possibly functioning for the purpose of putting over this sort of stuff against the medical profession and medical study and progress, rather than for the purpose of any legitimate and real study of and attempt to relieve the narcotic drug situation. We say this because of the present attempted misinterpretations of the Harrison law, because the same thing is happening in the Federal law that happened in the New York State law—the original intents of the law are being reversed by attempted interpretations. Namely, effort is being made to give to the Harrison law the effect of the Cortillo and Fearon-Smith bills, so that however actually illegal some interpretations may be, the effect is attempted to construe and interpret the Federal law to prohibit "ambulatory treatment." That is one of the reasons that New York is having such an increase in peddling and smuggling today.

* * * * *

This attempt is a very sinister thing. In reality its perpetrators are trying to influence and to bring about in the Federal decisions and interpretations and rules and regulations, etc., those very prohibitions that they failed to have enacted in the law of New York State. Doctors should not disregard the warnings of the New York State Society's legislative committee report. It contains the meat of the whole situation and its exposure of the crookedness of the workings.

Remarkable as the foregoing may seem, it is eclipsed by the attempted complete institutionalization of all addiction patients accomplished by the further rulings or regulations of the Internal Revenue Department at Washington under the October 19 order, as follows:

The following resolution passed by the Council of Health and Public Education of the American Medical Association at its meeting on November 14, 1920, is pertinent in determining the period over

which narcotic treatment should be extended in purely addiction cases:

"BE IT RESOLVED, That the Council of Health and Public Education of the American Medical Association indorses the principle expressed in the California law (sec. 8½) which forbids the use of opium and its derivatives in the withdrawal treatment of those addicted to the use of drugs for a period of more than 30 days after the commencement of the withdrawal treatment."

No names of members of the Council of Health and Public Education are appended to this remarkable pronouncement of policy in the treatment of addiction by the committee of the American Medical Association.

On December 24, 1921, I addressed a letter to Dr. Hulbert Work, president of the American Medical Association, requesting information as to the facts and circumstances which led to the introduction of this resolution and what action thereon was taken in convention which would make it the official, adopted opinion of the membership of his association. Dr. Alexander R. Craig, secretary American Medical Association, replying under date of January 6, 1922, stated of the report that—

It was referred, along with other matters coming from the Council on Health and Public Instruction, to the reference committee on legislation and public relations.

It stands alone apparently as the opinion of a few men who were present at the alleged meeting of the council of health and is absolutely refuted by clinical and pathological evidence at hand. Yet on this slender and unsubstantial evidence the great Government of the United States has drawn conclusions which affect the welfare, yea, the very life, of hundreds of thousands of our citizens.

The prohibition commissioner further solemnly ordains:

This bureau can not under any circumstances sanction the treatment of mere addiction where the drugs are placed in the addict's possession, nor can it sanction the use of narcotics to cover a period in excess of 30 days when personally administered by the physician to a patient, neither in a proper institution nor unconfined.

If a physician, pursuant to the so-called reductive ambulatory treatment, places narcotic drugs in the possession of the addict who is not confined, such action will be regarded as showing a lack of good faith in the treatment of the addiction, and that the drugs were furnished to satisfy the cravings of the addict.

If the foregoing two paragraphs had been taken out of the mouths of the five gentlemen from New York City whom I charge with working havoc in sane administration of narcotic statutes and regulations, they could not have more fittingly expressed the sentiments voiced by these same men.

The principles enunciated completely eliminate the family doctor from any treatment of addicts

and lay down arbitrary rules for the practice of medicine which must be followed by the physician regardless of his personal convictions or the needs of the case.

These principles were completely aired at the several hearings on restrictive anti-narcotic legislation before the New York State Legislature in 1920 and 1921, and met with just rebuke to the men propounding them. Yet they appear in this solemn screed issued by the United States Government and are followed by the remarkable additional statement:

Doubtful cases [of addiction] or those not falling within any of the above instructions, upon request will be investigated and special instructions based upon the recommendations of the inspecting officers will be issued.

Let this statement sink in. Consider it. The Government in positive terms says in its regulations or rules of October 19, 1921, that a physician may treat a drug addict only for a certain length of time, no matter what physical conditions may arise, or may commit or advise commitment of that addict to a sanitarium regardless of whether there is a sanitarium to put him in or whether he may regard the treatment of that sanitarium judicious or injudicious.

Further personal administration may be had only upon the all-knowing advice and consent of the learned prohibition commissioner or his inspectors, the record failing to show that all or any of these gentlemen have any knowledge whatever of even so remote a medical attainment as chiropody.

Are not administrators just as much legally bound to show honesty and good faith as anybody else? If they misinterpret or brush aside reliable available information, if they neglect or refuse to consider material evidence bearing upon their interpretations of the law or administrative acts, if they carelessly or negligently accept misrepresentations or misstatements of particular groups or cliques, shall they not be held legally responsible for the consequences?

Indicating that the rank and file of the medical profession were not alone in taking cognizance of these attempts against the carrying on of its legitimate practice, in the issue of Harvey's Weekly for the week ending June 5, 1920, under title "Legislative Doctoring," appeared the following editorial:

There is a grave menace of what might be termed legislative doctoring. By that we do not mean merely "doctoring" the legislatures and the laws, a procedure of which we have long had too much. We mean, rather, the practice of medicine by legislative dictation instead of at the discretion of educated, experienced, and responsible physicians. We mean that efforts are being made to invest the politicians and lawyers who compose the great majorities of Congress and the State legislatures with the power to say what drugs shall or shall

not be prescribed for sick people, and in what doses that shall be administered.

* * * As a matter of fact an attempt was recently made in the State of New York, and it is reported that one is now being made in Congress, to smuggle through a bill which would deny to physicians discretion or power in the administration of some of the most valuable remedies in the pharmacopœia.

The sinister Cotillo bill at Albany aimed directly at forbidding physicians to prescribe narcotic drugs in private practice, at any rate, to persons suffering from "addiction disease."

* * * The furtive and surreptitious manner in which it was attempted to get that bill through the New York Legislature was in itself sufficient to condemn the thing. In justice to Senator Cotillo, it must be said that as soon as he was made aware of the character of the measure for which he had unwittingly and innocently been made the nominal sponsor he withdrew it. But the incident did not end the menace. The same interests and influences, apparently, which sought to perpetrate that job at Albany are also busy and energetic, in much the same surreptitious way, at Washington, trying to get the National Government to arrogate to itself a monopoly in narcotic drugs.

The American Public Health Association is composed of the foremost public-health officials of the North American Continent. Its members are recognized men of standing. At its annual meeting in New York City, November 17, 1921, this body took up the subject of narcotic drug addiction. So distressing were the conditions reported that resolutions were adopted by the executive board of directors of the association recommending a full inquiry or investigation of the subject of addiction. The report of the committee on narcotic addiction of the American Public Health Association was adopted over the sole protest of Dr. Royal S. Copeland, health commissioner of New York City.

The committee recognized that the control of narcotic addiction constituted a medical and police problem, and, in part, stated as follows:

The group of addicts variously spoken of as criminals, degenerates, and feeble-minded is unwilling and unable to co-operate in the necessary treatment and should be kept under official control. In the opinion of your committee the control of this group is essentially a police problem.

The group of addicts who suffer from physical conditions necessitating an indefinite continuance of their use of the drug constitutes a medical problem.

Furthermore, the group of addicts in whom the clinical condition which was the reason for beginning the use of drugs no longer exists or who began the addiction for other than clinical reasons is also a medical problem.

The committee took a further progressive step in the annals of medical literature by clearly setting forth the basic definition of narcotic—opium—addiction. It states:

Narcotic drug addiction is a physical condition in which continued administration of narcotic drugs, from whatever cause or origin and in whatever type or class of individuals, has set up within the body a mechanism of protection against the toxic action of narcotic drugs. This mechanism of protection constitutes the mechanism of addiction disease. A narcotic drug addict is an individual in whose body the continued administration of opiate drugs has established a physical reaction, or condition, or mechanism, or process which manifests itself in the production of definite and constant symptoms and signs and peculiar and characteristic phenomena, appearing inevitably upon the deprivation or material lessening in amount of the narcotic drug and capable of immediate and complete control only by further administration of the drug of the patient's addiction.

* * * A definition along no other lines will include all who suffer from narcotic drug addiction. This symptomatology and the mechanism or process which produces it are the only common and characteristic attributes and possession of all narcotic addicts.

We would emphasize the fact that cocaine, alcohol, and other drugs of indulgence do not fall into this definition, and they and their problems of handling, treatment, and control are quite different and distinct from the matter of opiate addiction disease.

Now, Mr. Speaker, I am going to dismiss the other and equally remarkable provisions of the pronouncement of those learned medical men, Messrs. Blair and Haynes and their intelligent inspectors, to get back to article 1 of the Harrison narcotic law. This states in no uncertain terms that restrictions with regard to the dispensing of narcotics shall not apply to—

a registered physician, dentist, veterinary surgeon, or other practitioner in the course of his professional practice, and where said drugs are dispensed or administered to the patient for legitimate medical purposes and a record kept as required by this act of the drugs so dispensed, administered, distributed, or given away. (Regulations No. 35, p. 11, beginning with the words, "Provided.")

Obviously the ruling or regulation promulgated by Commissioner Haynes and approved by Commissioner Blair nullify and negative the intent of the Harrison narcotic law as just read into the record. If these new regulations or rulings squared with known medical facts, they would still be open to challenge on the ground that they constitute an amendment to the law on our statute books without reference to or regard for the wishes of Congress in the matter.

In fact they might be impeached upon the further ground that they invade the police power of the States of this Union in regulating the practice of medicine, which is entirely outside the purview of the Federal Constitution as at present interpreted.

It took the eighteenth amendment to open to the Federal Government the right to regulate the manufacture, sale, and transportation and dispensing of alcohol.

Apparently it takes but a twist of the wrist of the Revenue Department at the bidding of ignorant and egotistic, self-centered, and perhaps criminally involved professional men and administrators to put in force in these United States a set of regulations, drastic in their inception, unethical in their administration, and calamitous in their effect.

Let us see, gentlemen, how the sapient rulings of the learned prohibition commissioner, backed by the profound pronouncements of this little coterie of doctors and laymen who seek to dominate the very lives of 2,000,000 addicted citizens of this country, jibe with the less blatant, more humble, but perhaps more truthful scientific observations of medical men who do not seek to make a hippodrome of their profession.

I will lay down for you a few simple observations on addiction symptomatology born of my own knowledge of medicine and experience with addicts and patients, indorsed by hundreds of medical men and supported by the clinical findings of every man familiar with addiction of whatever school of thought or medicine. I will let you judge for yourselves if the habitual use of opium and its derivatives is a habit to be controlled by will, revenue agents and police.

Be it David or Goliath, judge or degenerate, prostitute or preacher, opium plays no favorites. Race, color, creed, physical and mental ability alike are no bar to contraction of addiction. And once addicted there follows a symptomatology represented by practically unvarying manifestations recognized even by that small band who apparently are backing the latest regulations of the post-addiction school of misinformation conducted by the New York City Department of Health and others and later indorsed by the Department of Internal Revenue.

These symptoms are increased tolerance for the drug of addiction and distinct physical reactions which inevitably follow unscientifically decreased dosage or withdrawal of the opiate of addiction. Here there arises a series of physical manifestations that have long puzzled science, though they have been recognized as the inevitable signs of opium starvation.

These manifestations are sneezing and gaping, sweating and purging, vomiting and diarrhea, heart and circulation disturbances, agonizing pains, extreme nerve manifestations, collapse, and sometimes death.

Every writer of prominence on addiction subjects recognizes these symptoms as the concomitants of narcotic drug withdrawal, and every writer on the subject of addiction with equal unanimity will bear testimony to the fact that administration of the opiate of addiction will almost immediately

correct these disturbances and restore the sufferer to normal.

From this point on in the discussion of addiction as a disease or as a habit I proceed with extreme care, because I realize that there stand against me a ring of self-seeking sanitarium aggrandizers, physicians, and administrators whose misrepresentations of addiction subjects has brought sorrow and shame, suffering, and mortality upon a great section of our American public.

There has grown up in the United States two basic and fundamental schools of thought with regard to the treatment of drug addiction. One holds, despite the physical reactions I have enumerated, and which are admitted, that the opiate addict may control his suffering from these reactions and by exercise of his will restore himself to normality, though the proponents of this school usually advise leg irons, handcuffs, and close confinement as the means of bringing about his physical and moral regeneration.

Prior to 1918 and up to the time of its exposé by the Whitney joint legislative committee (New York) the leaders in the line of publicity were Mr. Charles B. Towns, and his co-worker, Dr. Alexander Lambert, proprietors of the Towns-Lambert treatment. Towns faded from the picture as soon as the committee published its findings and has not been heard from since.

In the recent past and at present the leading exponents of the "habit" theory as applied to drug addiction are the New York City Board of Health and the small coterie of physicians so active in propaganda.

Of different calibre and greater prestige is Dr. Alexander Lambert, regarded as one of the most eminent practitioners in the United States and as a leader of a school of thought and practice in addiction subjects which couples routine and specific medical treatment for drug addiction with the observation that post medication must be followed by application of the will and determination of the addict.

Dr. Lambert allied himself early in his addiction history with Charles B. Towns, a layman and sanitarium proprietor with a specific treatment for narcotic addiction which acknowledged all the varied physical reactions due to drug withdrawal but stressed the need of Christian Science personally applied to keep the addict on the straight and narrow path. Belladonna and blue mass formed the staples of the Towns-Lambert treatment, just as other active purgatives from the basis of most of the known routine medication that has grown up in this country.

I will not dwell upon the specific and detailed results of this purgation nor attempt to describe before the Members of this House the different shades and colors, consistency, and solidity of the products of elimination by which the learned gentlemen administering the medication determine the exact status of the will power of the patient so

soon to leave the confines of their sanitarium to lead a virtuous life free from recourse to narcotics—by the exercise of self-determination.

The man or woman who went through this routine treatment was declared "cured" whether or not there remained any lingering trace of the physical reactions caused by drug withdrawal. You can learn all about it by perusing the pages addressed to this treatment of drug addiction in the files of the Journal of the American Medical Association.

Meantime I will turn to consideration of another school of thought in the medical profession which boldly accepts the symptomatology of drug withdrawal as a disease manifestation, which has no specific or routine treatment for addiction and which does not hold that a patient is cured unless at the end of medication he is free of all the physical phenomena accompanying deprivation of opium or its derivatives.

The late George E. Petty, of Tennessee, was the American pioneer in this theory of addiction treatment, and his book, *Narcotic Drug disease and Allied Ailments*, stands today as a milestone on the road to progress in American medicine. Petty challenged the assertion that any routine treatment would free all narcotic addicts of physical reaction, and supported his thesis with a wealth of clinical observations extending over a quarter of a century. As a reward for his pioneering he remains today less known to the great body of American physicians than some who have forced the public and the profession to listen to the more noisy and less scientific reiterations of medical and lay owls possessed of a throaty voice and a fine intonation, who have persistently sat upon a dead limb of the tree of knowledge and impressed the public by advertisement and propaganda.

The next man to rise in his place and declare that clinical observations of addicts and their symptomatology could only be explained in the terms of disease was Dr. Ernest S. Bishop, of New York City, who will go down in medical history as one of the few fearless men willing to stake a reputation and a livelihood on honest observation and truthful deduction. Along with Petty's book, *Narcotic Drug Disease and Allied Ailments*, Dr. Bishop's book, *The Narcotic Drug Problem*, takes sharp issue with the out-and-out habit theorists and that school of thought headed by Dr. Lambert and adhering to routine or specific treatment of addiction. It is a standard work on the subject today.

For this opposition Dr. Bishop was indicted, and still enjoys that distinction through the failure of the United States Government to find out the truth about the narcotic drug problem and apply it. His persecution is a medical and political scandal and an obstruction to solution of the drug problem.

It is said to be the same sort of persecution from the Internal-Revenue narcotic force that resulted in the death of Dr. C. F. J. Laase, of New York

City, an honest and recognized student of narcotics and addiction.

Such things cry aloud for investigation for the sake of the welfare of this great country and the medical profession, and it seems to me that the untutored narcotic agents of this great Government under the last administration might have been better employed than in taking sides in a medical controversy involving the broad subject of what will or will not constitute the proper medication in the treatment of addiction. Yet this was done, and I am sorry to say is now being done by our Government, and will continue to be done until the end of time unless some protesting voice is raised against undue interference by lawyers, policemen, and detectives in the practice of the science of medicine, and the furtherance of its research and study.

Fortunately the time has arrived when clinical research and personal observation of addiction phenomena no longer stands alone against the wordy impeachment of blatant critics. The laboratory of recent years has contributed indisputable evidence of physical changes in those addicted to opiate which brooks no denial.

Not to take up the time of this House with material which is open to reference by every student of addiction in any well-equipped medical library, I will confine myself to reviewing striking examples of European research.

Adriano Valenti, of the University of Pavia Institute of Experimental Pharmacology, conducted the following experiments:

Dogs of similar breed, weight, and approximate normality were chosen by Prof. Valenti as subjects for his research. One dog was subjected to increasing doses of morphine until it became an addict. Upon the withdrawal of the drug this canine manifested all the symptoms occurring in man under similar circumstances. Blood of this dog was withdrawn after it had been deprived of morphine dosage.

The serum obtained from this blood was then injected into the normal dog of equal weight, size, and similar breed. This animal then exhibited all of the withdrawal symptomatology displayed by the addicted canine and also observable in a human being in opiate withdrawal. Prof. Valenti is still writing and teaching and experimenting on this subject. His conclusion is that withdrawal of opiate administration in the case of animal addiction creates an active disease agent in the blood which accounts for the physical reactions manifested.

Possibly the addicted canine might have recovered from his physical disorders resulting from his morphine withdrawal if he used his will power. Any gentlemen who would like an opinion on the subject can easily communicate with Prof. Valenti. I may say in passing that his experiments were exhaustively made and repeated and verified.

Another distinguished Italian scientist who has carried on extensive laboratory animal experiments is Prof. Carlo Giffredi, of the Institute of Experimental Pharmacology of the University of Naples. Still others are Profs. Leo Hirschlaff, of Germany, Cloetta, of the Zurich Institute of Pharmacology, and many others whose works are available for discussion.

If there is any remaining doubt after reading the results of these laboratory and clinical experiments, let the learned gentlemen who would impeach this testimony controvert these authorities in the field of laboratory research, where results may be checked up by competent observers and the moot questions scientifically settled.

I hold no brief for the disease theorists of addiction nor for the habit theorist of addiction. I do not care which cleaves closest to the truth in its tenets, but I am willing to accept the cold logic of the laboratory as it checks up the observations of the clinical students, giving us the only present scientific explanation for this condition.

Therefore, if I may be permitted to venture the humble opinion, it might be well for the Board of Health of New York City and for that branch of the revenue department of our great Union so ardently interested in solving the drug problem to pause in its contemplation of this subject and take some slight consideration of the wealth of bibliography and evidence piled up by medical and laboratory observers all the world over.

Advancement in most sciences has come through just and calm consideration, analytical discussion, and uninterrupted study. And I do not believe that we here in America will advance far toward the solution of the problems presented by narcotic-drug addiction if we ignore persistently the work of competent observers and laboratory experts to set up a rule of thumb with regard to medical science, based upon the opinion of laymen, which in turn reflects the conviction of one class of medical men whose oral gifts permit them to shout louder than their fellows.

If he has plenty of money these pseudomedical savants recommend that he go to Dr. Jones or Dr. Smith's sanitarium where he can take a "cure" of more or less efficacy, which very likely is challenged by everybody who has been through it. And if this same gentleman happens to be without funds these learned administrators of our laws provide nice, cool jails, where the suffering addict can get every attention that their humanity suggests, including incarceration in a padded cell and a liberal douching with a fire hose upon occasion.

If this were a fight between two or more factions of the medical profession which did not so vitally involve the welfare of our Nation, it would present a farce comedy of high caliber. Unfortunately, however, the method in vogue for the handling of addiction in America has its direct reflection upon the economic and social life of our communities.

It behooves us, therefore, to use every care in our deliberations upon this grave subject and to be extremely cautious as to whose medical chestnuts we are pulling out of the fire.

To even the lay observer it must be apparent that there is a wide difference of opinion among medical men, and I speak to you as a medical man upon the subject of addiction treatment.

Some authorities have even stated that there is available no method of medication or standard treatment which will surely relieve the addict patient from the grave physical reactions resulting from withdrawal of opiates.

This was the opinion in 1917 of the Whitney joint legislative committee investigating habit-forming drugs in the State of New York, a committee which was created at a cost of tens of thousands of dollars to the taxpayers of the State and which held exhaustive and unbiased hearings to which the foremost addiction authorities in our country were invited.

This also was the opinion of the so-called McAdoo Committee of the Treasury Department which, in 1918, conducted an investigation of addiction subjects.

In the report of the special committee of investigation appointed March 25, 1918, by the Secretary of the Treasury to study the "traffic in narcotic drugs," published June, 1919, by the Treasury Department, on page 28, last paragraph, is stated:

It is also recommended that both public and private medical organizations which have research facilities be requested to undertake studies to determine the nature of drug addiction with the view of improving the present forms of treatment or evolving some new and more efficient method of handling these patients. The latter statement is made in view of the fact that at the present time there are numerous forms of treatment for drug addiction, none of which appear to have been given a thorough trial by the medical profession, as a whole, or to have received the unqualified support of those members of the profession who have had no financial interest in the matter.

As a result, the policies of the Internal Revenue Department were administered along broad lines which, on the one hand, maintained rigid supervision over the manufacture, sale, and distribution of narcotic drugs, and on the other encouraged study of this subject by men of the medical profession.

The Board of Health of Louisiana, alarmed at the growth of morphine addiction and the ruinous victimizing of patients through underground peddling of the drugs, opened a clinic in New Orleans, where addicts were under the continuous oversight and care of the best physicians, and where they received the drugs at cost price. The plan was very successful. Underground peddling practically disappeared, and the situation was very much better.

About November, 1920, without reason or ex-

planation, the Bureau of Internal Revenue at Washington ordered the institution closed. The first order being ignored, a second order was issued, which was reluctantly obeyed. The result was that the patients were again driven to the underworld and the situation became as bad as before.

At Los Angeles and San Diego, Calif., similar clinics were inaugurated with marked success. The same mysterious orders came to California that were given to Louisiana, backed up with a special agent from San Francisco to see that the orders were executed. The only explanation obtainable for the above remarkable happenings was that the department at Washington had "changed their minds."

Along these lines the Whitney legislative committee recommended to the State of New York the enactment of legislation which sought the co-operation of the physician as well as of the hospital and the sanitarium in caring for addicts. This policy of dealing with addiction was not reversed until for some unknown reason the board of health of the city of New York decided that it alone possessed all the knowledge within the purview of the medical fraternity, and began the old game of forcing others to fall in line by administrative and legislative pressure.

It is true that these legislative programs did not solve the drug problem, but during the short time that the Federal Government and the State of New York and other States laid out their policies of co-operation with all elements of the medical profession there was an interest evinced in the sociological and clinical solution of addiction that was bearing fruit. Physicians felt that they could safely give time and attention to the study of addiction treatment without fear of molestation by the police. The result was a free exchange of ideas upon this subject and a reclamation of the honest addict from the grip of the under-world peddler.

Then gradually came the tearing-down process, which has resulted in the wholesale indictment of physicians and the imposition of present rules and regulations in complete reversal of earlier findings and policies.

I desire to explain to you just what are the social reactions upon the community of these two policies of handling addiction forces. And I also want to state here the reasons for this social phenomena as it may be expressed in the term "types of addicts."

Through the police courts of every great city in the Nation there is a daily parade of criminal and non-criminal drug users. In this particular strata of society the criminal element is in the majority. If the drug user is arrested for a criminal offense, the fact that he is deprived of drugs through incarceration soon makes itself known by development of the physical reaction resulting from drug starvation, as I have already outlined to you.

This is the type of individual addict which receives frequent mention in the newspapers, which is constantly kept in the public eye, and which has in many cases earned the harsh terms in which addiction is popularly expressed.

This type of addict, however, is regarded by most competent authorities as being in the great minority, for drug addiction is no respecter of persons and is manifest in every strata of society.

The better class of addict, the average addict, usually is able to fight his battle and control his addiction with the aid of friends and money, and to keep out of the public prints. In most cases he has become an addict as a result of medication or post-operative administration of narcotics. Histories are on record where addiction has been created as a result of relatively short narcotic administration.

This man deserves and should command competent medical attention and the best help within the reach of science in the handling of his condition. He has no criminal tendencies, and he will not become a criminal unless he is forced by need of the drug to association with criminals or the commission of an act which shall invoke the law.

If this type of addict is open to study and treatment by competent family physicians, he keeps within the bounds of good behavior and usually in a reasonable degree of normality and health and economic productivity. He may or may not try one or more of the routine "cures" for addiction. Usually if he has money, he tries every avenue that promises relief from drug necessity, and usually through long experience he becomes extremely skeptical as to the claims of the advertised "cures" and "treatments."

Under the methods of administering narcotic statutes now in vogue this addict must go to an institution to receive treatment under confinement, and he must be cured in name when he leaves that institution because the law so implies.

These private sanitarium treatments are expensive. Many or most of the decent addicts have not the means and many more have not the courage again to invoke some of their drastic regimens. Both classes, shut off from attention by legitimate physicians, are driven to the street-corner peddler and the underworld for narcotic supply.

The result is a tremendous increase in smuggling and illicit traffic in drugs; arrests and convictions for illicit possession, and the incarceration of many innocent individuals in city jails and institutions where it is common knowledge they are herded with degenerates and worse. To put it plainly this is making criminals of innocent people, and involves aggravation of underworld conditions which has its reflection in court records and the newspapers.

The McAdoo committee states that—
it has been computed * * * that the average annual expenditure for an addict to satisfy his ad-

diction amounts to \$61.18. Upon this basis of cost of drugs alone, the addicts of this country annually pay over \$61,000,000 for the satisfaction of addiction.

This is the natural commercial opportunity caused by the reaction created by the closing of legitimate and honest sources of medical attention to addicts.

The committee further goes on to state:

It is concluded from a careful analysis of these figures, as well as those obtained by other investigators who have made a study of this problem, that at least 25 per cent of the addicts are not steadily employed in gainful occupations. This would represent at least 250,000 unemployed addicts in the United States. At a conservative estimate this would represent the loss in wages of \$150,000,000 annually. These figures, however, do not include the cost of drug addiction to individuals as a result of loss through theft and burglary, nor the cost to the States and municipalities in the suppression and punishment of crime and the care and treatment of those who eventually become a charge upon the community.

Many of these unfortunates are veterans of the late World War, addicts because of treatment in field and base hospitals. I feel and I believe that we have no right to impose upon these men the mental degradation and the physical suffering entailed by our present arbitrarily imposed system of addict handling, which simply takes sides in a medical controversy and visits humiliation upon the drug user.

Mr. Speaker, I realize that these remarks are being drawn out somewhat longer than I had originally intended. Yet I have but barely scratched the surface of the wealth of material or the facts which I have in my possession. I can sum up in no better way than by again quoting from the editorial of June 5, 1920, of Harvey's Weekly:

Drug addiction is undeniably a very great evil, which is probably increasing in extent. Undeniably, too, some of the grosser forms of it are to be checked and abated by legislation and by police administration. But the most important part of it can be dealt with efficaciously only by competent and conscientious physicians in private practice. To forbid such treatment of it would be to place sufferers at the mercy of "institutions" which most of them would rather die than enter, or of the purveyors of "sure cures" of the most pernicious type. It may be that further legislation, State or National, is needed on the subject. But it is absolutely certain that no such legislation should be enacted without the fullest possible publicity, or without first having a competent and open investigation, which would bring all the conditions and facts to the intelligent attention of the lawmakers. There must be no more "sneak" legislation to enable designing men either to exploit the vices or to batten upon the afflictions of their fellows.

It is in the hope that this body will see fit to

begin an unbiased and much-needed investigation of addiction conditions, upon which old-laws and rulings be revised and the highest degree of consideration for the very great need for knowledge upon all phases of this complex sociological scientific subject that I press the adoption of my resolution.

PUBLIC HEALTH OFFICERS CHARY OF SUGGESTING INNOVATIONS

We have long suspected that officers of the United States Public Health Service were chary of suggesting innovations. Changes tending to betterment of their work, because they were not welcomed or appreciated by the smug, self-satisfied "higher-ups" but never before have we experienced knowing that mildly stating the mere truth and suggesting improvement of a condition well known to exist would be followed by dismissal of the hardy soul who so forgot himself as to utter the truth. However, that is exactly what happened to Dr. Haven Emerson of that Service.

Addressing the American Hospital Association at West Baden, Dr. Emerson took occasion to note that the Service was indeed handicapped by the well-known tendency of a certain percentage of the beneficiaries, who being more than satisfied to remain sick charges of the Government, neither aided in or cared to alter their state of helplessness. That this exactly states the truth is too well known to those having contact with these men, to doubt for a moment. Examiners and officers of the Service have noted many plain cases of apparent malingering, exaggeration of the claims of disability, and the palpable desire of the claimant to impress upon the physician attending him, that his was a case of terrible import. The Public Health Service should take a page of history and experience from the records of those heretofore handling claims of pensioners of the Government, for men are much alike the world over, and there it will be seen that magnifying one's illness is a common practice among some of our late "heroes," but, when we have to stand by and see an honest man penalized for calling attention to this matter, then indignation knows no bounds, and the desire to rectify such wrong will remain uppermost.

If ever a branch of the Government needed renovation, it is certainly this self same, satisfied aggregation sailing under the colors of supposed saviors of our soldier sick. That this minority among them will eventually cast suspicion upon the real sick is too evident, and the one ferreting out that class deserves something more than mishandling as was the treatment accorded this professional man who saw the thing just as it existed and felt called to protest against it. Dr. Emerson also objects to laymen being placed in position where they may order professional men what to do. Certainly that is a grave objection. It is bad enough, productive of enough harm, to have incompetent medical men set up as directors of the competent, as they are in this work, but when a layman is given that duty, it then becomes intolerable.

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FEBRUARY, 1922

Editorial

MAKE HOTEL RESERVATIONS EARLY

PATRONIZE THOSE THAT PATRONIZE YOU

Illinois State Medical Society will meet in Chicago, May 16, 17 and 18, 1922.

The headquarters for the meeting will be the Congress Hotel, Michigan Avenue and Congress St.

All the sessions will be housed under one roof.

The Congress is one of the largest and most popular hotels in the West. It is sufficiently commodious to accommodate all the visiting doctors.

The Congress has made the State Society a very alluring proposition as an inducement to hold the State Convention at this hotel. It is therefore only just and honorable that the members of the State Society reciprocate to the extent of making the Congress Hotel their headquarters while attending the State meeting.

The officers of the State Society respectfully request that alumni meetings, dinners, banquets, luncheons, etc., be held at the Congress as a token of appreciation of the concession made the Society by the Hotel Congress officials.

We respectfully suggest that members of the

State Society and others who contemplate attending the convention in May make reservations early and that the reservations be made directly with the Hotel management.

The local Committee of arrangements is Dr. Frank R. Morton, 25 E. Washington St., Chairman. Dr. Thos. P. Foley, 25 E. Washington St., Secretary.

MANY OF THE LAWS WOULD NOT HAVE BEEN ENACTED HAD WE BEEN ALERT

WILL YOUR BUSINESS WITHSTAND NEXT YEAR'S NEW LAWS?

Some fifteen thousand laws were written into the statute books by the state legislatures of the United States during 1919. The number will be greater still for 1922. Will your business interests withstand them? How much ill-advised or hasty legislation—inevitably a part of that immense volume—can you bear and still prosecute as profitable an enterprise? The larger your business, or the more widespread the interests you represent, the greater the need to watch the legislators in the various states and to see that the facts on your side are fully presented for their consideration.

Hundreds of laws repealed and modified every

year would not have been enacted had the parties whose business was legislated upon had enough advance knowledge of the proposed legislation to bring their side of the question to the lawmakers.

But how are you to watch the course of proposed legislation? During 1921, when forty-three legislatures were in session it would have meant, to your Legislative Committee a corporation or national trade association, the examination of forty-five thousand separate bills and watching them from day to day, until finally disposed of, and the expense of such an undertaking to most corporations or associations would render the undertaking impossible.

GOV. MILLER OF NEW YORK CALLS "BABY BILL" ILLEGAL

TELLS BAR ASSOCIATION LAW PASSED BY CONGRESS CANNOT STAND TEST

OPENS PERILOUS DOOR

WARNS AGAINST TENDENCY OF U. S. TO DICTATE TO STATES

NOTABLES AT THE DINNER

EX-JUSTICE JENKS FEARS INJUNCTION'S PROGRESS—CANADIAN JURIST TALKS

Governor Miller was the principal speaker at a dinner in the Hotel Astor January 21, 1922, which brought to a close the annual convention of the New York State Bar Association.

He devoted himself mainly to a protest against Federal meddling in purely State affairs. He especially resented the passage by Congress of the Sheppard-Towner bill, which was known in Washington as the "baby bill," and which provides for the extension by the Government of financial aid to States for the protection of maternity and infancy.

Governor Miller said he had no quarrel with the object sought by this law, but he said the work can be done properly only by local agencies. Furthermore, he declared the law to be unconstitutional.

"I wish," he said, "to utter a note of warning against the present tendency to build up a Federal bureaucracy to supervise State activities under the guise of Federal aid, and thus by indirection to change our system of Government and to destroy

the limitations upon the exercise of Federal power fixed by the Constitution."

Governor Miller said he had no objection to the expansion of Federal power to regulate commerce among the States. He approved of it.

"But," he continued, "a new discovery seems to have been made by Congress of a new and hitherto undreamed of power to legislate on any subject which it deems to involve the general welfare, and under the interpretation it recently has passed the so-called Sheppard-Towner law. Under that law the health department of every State may be brought under the supervision of a Federal department of health.

"Under the guise of extending Federal aid to education it is next proposed to subject the educational system of the States to similar Federal supervision. If that tendency is not checked we may expect the gradual extension of Federal supervision over every State activity. It will result in great waste of public funds and the creation of expensive and well nigh useless Governmental agencies, both State and Federal."

BABY LAW IN NEW YORK STATE

The Governor noted that New York already has an act, passed last winter, empowering localities to provide prenatal and maternity care.

He assumed that the Sheppard-Towner law would be defended under the section of the Constitution itself precisely defines the things Congress may do "to provide for the common defense and general welfare."

"And none of these specifically defined and enumerated powers includes the practice of medicine or mid-wifery," the Governor remarked. He added:

"The time has arrived to call a halt, to ask every patriotic citizen who loves our country and cherishes its institutions to take note of the goal to which the course upon which we have entered will inevitably lead."

ONE THOUSAND AT DINNER

The dinner brought together almost 1,000 attorneys and Judges. The chairman was William D. Guthrie, president of the State Bar Association. Other speakers were George W. Wickersham, formerly United States Attorney-General; Federal Judge Julius M. Mayer, Almet F. Jenks,

formerly presiding Justice of the Appellate Division of the Supreme Court, Second Department, and Sir Francois Le Mieux, Chief Justice of Quebec.

MULTIPLE VOTING PRIVILEGES IN THE AMERICAN MEDICAL ASSOCIATION

ONE MAN'S VOTE IN THE A. M. A. SHOULD REPRESENT AS MUCH AS ANOTHER

Comment: This editorial should be read in connection with the communication from the Medical Advisory Committee, which we publish elsewhere, entitled "A Call for Medical Reform in the American Medical Association."

Medical population of each state in the union is the hypothetical basis for the calculation of representation and franchise privileges in the House of Delegates of the American Medical Association.

This premise is vitiated through a "special section" joker. *There are fifteen extra votes in the House of Delegates of the A. M. A. that do not belong there.* These fifteen votes are in the hands of "special section men." Each one of these fifteen ballots negatives the erstwhile "say-so" of fifteen states. It is an unjustified, malicious usurpation and aggrandizement of power.

The Illinois State Medical Society and the Chicago Medical Society suffered from multiple voting power vested in a privileged few. At one time this most undemocratic feature of multiple voting power was almost the undoing of both organizations. For instance before the Chicago society could be rid of the evil it was necessary to submit the proposition to a referendum vote. It is to be hoped that the A. M. A. will not find itself in a similar predicament.

In connection with the multiple voting power evil it is well to recall what happened in the Chicago Medical society and in the Illinois State Medical society. Primarily the establishment of this unfair and undemocratic system, in the Chicago Medical society and subsequently the refusal of the sponsors of the vicious scheme to abolish it voluntarily led to the elimination and to the continual surrender in the management of affairs of both societies of many of the men who sponsored this class privilege now in vogue in the A. M. A. Following the elimination of multiple voting power in the Chicago Medical Society and the substitution of equal franchise the society took on new impetus. It grew by leaps and bounds. Today it is the most alert,

most progressive and largest local medical society in the world. One member's vote represents voting power equal to that of any other member.

The same group of medico-political milkmaids that inflicted this evil upon the Chicago Medical Society and the Illinois State Medical Society no doubt is responsible for the inauguration of the multiple voting system in the A. M. A. *Not content with this wholesale loot of representative power this same coterie has set on foot a movement to extend to a period of seven years the term of the A. M. A. trustees.* What with this purposed extension of authoritative control and the absolute annihilation of the opinions of state after state it looks as if the silklined welfarists in the A. M. A. were out to set up kings faster than Europe can kick them over.

Glance at a few statistics. Take a bird's eye view of the situation.

Section XI of the By-Laws of the A. M. A. permits the scientific sections to the number of fifteen each to elect a delegate with voting power to the national house of representatives for the term of one year. This section of the by-laws thus automatically grants a special voting privilege to a special class. *Further this reduces the value of representative delegates in the ballot totals by fifteen votes.* It negatives the value of fifteen votes and destroys completely the voting power of fifteen of the states from which there is no "special section" representation and from which the allotment is one vote each. The workings of this by-law and this multiple voting power that results from it turns the A. M. A. from the democratic institution that it should be, into a cheap oligarchy, which of all things it should not be.

The rule and not the exception is for a delegate not to represent at the same time, a division of his scientific section, and his state. For some states this results in a quick concentration of power that is a facile tool for machine politics. Give a state extra delegates with a state vote in the palm of each hand—and to the lobbyist "what to do" is easy.

Superdelegates and multiple voting power are scattered usually among a few states. For instance in 1920 Kentucky and Ohio had one each, Indiana had 2, Illinois 5, and New York 6. While in 1921 there was one each in Alabama, District of Columbia, Indiana, Ohio, South

Carolina, Massachusetts and New York each 3 and Illinois 4.

To get an idea of the way this block works when it is in action turn to the records of the New Orleans meeting in 1920. The state of New York had six "joker" votes—repeater ballots, too—because of her superdelegates, in addition to the regular legitimate eleven votes based on representation according to medical population. This gave New York a total of seventeen votes. Either Missouri or Texas state quota was five votes. Texas for instance had no superdelegates. In the face of New York's eleven representative and six unrepresentative votes, anything that Maine and Texas might wish to say would receive ballot contradiction immediately if New York wished to differ because the legitimate votes from Maine and the legitimate votes from Texas would be literally wiped out by the force of these unrepresentative illegal votes held by the State of New York.

This is practically as bad as it was in the old days in the Chicago Medical Society when the total representation in the governing body of that organization was fifty votes. Many of the same crowd that has hamstrung the A. A. A. were the guiding spirits of the Chicago Medical Society at the time mentioned. In the Chicago Medical Society these special privilege advocates annexed twelve special societies each with a councilor with voting power. This resulted in fully twenty-five per cent. of the balloting being a special privilege to a few through this multiple voting power provision. It became ludicrous in the face of the fact that some of the men belonged to many of the different "special societies." One man for instance had nine votes. Another had six votes. There were several men with two or three. Repeatedly request was made to eliminate this unfair feature. Repeated refusals to do so finally brought about a referendum vote, and it was all wiped out by a vote of twenty to one. The A. M. A. should think of this. "History repeats itself."

Estimate has been made that the block of fifteen illegal votes in the House of Delegates of the A. M. A. represents the selective vote and choice from the scientific section with a personnel of about "5,000 fellows and associate fellows," who have already been represented once as to their opinions through the delegates from their

state societies. *Yet through this block of fifteen these five thousand self appointed luminaries not only get a double vote but they manage to vitiate the wishes of fifteen entire states with a population of over ten million.* Yes, at least ten million if one chooses as a typical group of suppressed states minus super-delegates the states of Arizona, Delaware, Florida, Maine, Mississippi, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, South Carolina, Rhode Island and the District of Columbia. Or, in another comparison, it is found that this block is more compelling than the wishes of the medical men representing the fifteen million people who live in Pennsylvania and in Ohio. Fifteen unfair votes can work that much damage!

These fifteen votes represent subsidized legislation. These fifteen votes are special privilege to the holders. These fifteen votes take an inequitable advantage of a false system of ballot distribution. The states that hold these votes cast two votes each to every single ballot held by their fellows. *The holders of those votes have representation again in their state societies and again in the special section trespass.* This same group on whose shoulders rests the odium of polluting the A. M. A. with multiple voting power, *is the same group that held out a friendly hand at the Boston meeting towards bolshevist propaganda that will tend to the ultimate socialization of the practice of medicine.*

This block of fifteen is irresponsible. It is beyond control. If a state delegate is a derelict a state society can discipline him. But nobody can touch this block. It is indeed a case of "jokers wild." This block should be abolished.

Here is a point at issue where the rank and file should express its opinion. As the rank and file has all the work to do let the rank and file dictate the way in which the work should be done.

As this block of super-delegates is accredited with being the force that made it impossible for the rank and file to elect at the Boston meeting trustees who would represent the physicians of the United States and not the professional "welfare" health center advocates, hypocritical "foundations" and other reptilian invaders of that ilk, one need look no further for a shining illustration of the evil wrought by multiple voting power. This franchise inequality is the open

sesame for all chicanery. Why should there be duplex representation from any sort of men? These "special section" men each belongs to his residential state society. Why should they be privileged to hold that representation and then possess additional representation as a "member of the section?" Who pinned that rose on Willie anyway? Why not let the poor devils who weed the gardens wear their flowers themselves? Is not the laborer worthy of his hire?

A CALL FOR REFORM IN THE AMERICAN MEDICAL ASSOCIATION

NOTE: The communication from the Medical Advisory Committee published below was taken under advisement by the Council of the Illinois State Society at its meeting in Chicago in January, where it received favorable consideration. From experience extending over many years members of the Council quickly realized that the evils depicted as explained in the Advisory Committee communication do exist, are true and only half told, and that it is time for the Medical profession of the United States to undertake the correction of these evils at the earliest possible moment. Elsewhere in this issue we comment on one of the evils mentioned under the title "Multiple Voting Privileges in the House of Delegates of the A. M. A."

MEDICAL ADVISORY COMMITTEE

My dear Secretary:

As the fate of the Practice of Medicine is at stake, this plea is being sent to every County Medical Society in the United States. Kindly submit it at once to your County Society for consideration and action.

To Members of the Medical Profession:—

The Public and Professions are being sold out to—

- (1) Foundation control of "full time" medical education.
- (2) Lay board domination and the "closed shop" hospital.
- (3) Socialized state medicine, subsidized community health centers and hospitals under political or university control.
- (4) Legislative dictation of therapy and fees.
- (5) Demoralization of medical standards by the expansion of cults.
- (6) Exploitation of the specialties by lay technicians.

These menacing movements will succeed unless they are combated by a powerful and united opposition. Your so-called leaders are either openly

fostering these destructive forces, or more subtly giving them full fling by a camouflaged neutrality.

The American Medical Association belongs to you and you are entitled to have it effectively protect your vital interests. Let your action on this nation-wide referendum carry your mandate.

In the present crisis it is up to every County Society to instruct all Delegates to the A. M. A. meeting at St. Louis, Mo., May 22-26, 1922, to vote for—

- (A) A change of policy and leadership in the A. M. A. pledged to the immediate abolition of the evils mentioned, and constructive protection of medical interests.
- (B) The repeal of multiple representation and plural voting privilege by Section Delegates.
- (C) The election of Trustees for a period of two years; five Trustees to be elected one year, and four the next, to prevent the Trustees from perpetuating oligarchical rule.

Unless there is a drastic change in the policy and leadership of the A. M. A. the public and profession at large will continue to be misled and misrepresented in the solution of the most pressing problems affecting public welfare and the practice of medicine.

The members of the Scientific Sections are already represented by the Delegates of their respective State Societies, and the voting of Section Delegates is multiple representation, and as such undemocratic and unfair. Unless this plural voting privilege is repealed, the 15 Section Delegates will continue to negative and outvote the Delegates of 15 State Societies having only one Delegate each.

At present three of the nine A. M. A. Trustees are elected each year for a period of three years. There is a proposal before the House of Delegates, introduced at the Boston meeting (1921), to reduce the number of Trustees to seven and have the term of office seven years. Unless the proposed election of Trustees for seven years is nipped in the bud, the A. M. A. will be relegated to "gang rule" for all time to come.

At the Boston meeting of the A. M. A. (1921) those representing the rank and file of the profession lacked only 7 votes of being in control of the House of Delegates, and would have been able to initiate a policy of public and medical protection, if they had not been outvoted by the Section Delegates. In this connection the following editorial note or warning is of pertinent interest:—

... "For the benefit of the large number of State Journals that exchange with us, we desire to call attention to the necessity of determining where the Delegates to the A. M. A. stand on many questions of vital interest to the welfare of the medical profession at large. We have had examples of what some of the leaders in the profession would do to us if they have their way. It is

time to know something about the attitude of those whom we send to represent us at the great parent organization, which supposedly represents the voice of a very large majority of the medical men in this country. The trouble of it is we sometimes are betrayed, and if necessary, in order to have our wishes respected, our Delegates ought to go instructed."

(Jour. Indiana State Medical Society, November, 1921).

This warning is all the more necessary since the Board of Trustees, at the Boston meeting (1921), reported that they had under consideration the advisability of the A. M. A. paying the expenses of the A. M. A. Delegates. This simply means further subsidizing of the Delegates to control their votes and to thwart the interests of the rank and file. Each State Society, that values representation by its own Delegates, must take action against this political maneuver.

This is your opportunity of putting your power of attorney into the keeping of only such Delegates to the St. Louis meeting, who will openly avow their stand on all vital matters, who will fight your battles and to whom your interests will be a sacred trust.

Self-protection is the first law of life. Act now!

Faternally yours,

MEDICAL ADVISORY COMMITTEE.

(Signed) F. H. McMECHAN, M. D.,
Secretary.

RESOLUTION

WHEREAS, the Public and Profession are being sold out to—

- (1) Foundation control of "full time" medical education.
- (2) Lay board domination and the "closed shop" hospital.
- (3) Socialized state medicine, subsidized community health centers and hospitals under political or university control.
- (4) Legislative dictation of therapy and fees.
- (5) Demoralization of medical standards by the expansion of cults.
- (6) Exploitation of the specialties by lay technicians.

THEREFORE BE IT RESOLVED, That all the Delegates of the..... State Medical Society to the A. M. A. meeting in St. Louis, Mo., May 22-26, 1922, are hereby instructed to vote for—

- (A) A change of policy and leadership in the A. M. A. pledged to the immediate abolition of the evils mentioned, and constructive protection of medical interests.
- (B) The repeal of multiple representation and plural voting privilege by Section Delegates.

- (C) The election of Trustees for a period of two years; five Trustees to be elected one year, and four the next, to prevent the Trustees from perpetuating oligarchical rule.

BE IT FURTHER RESOLVED, That copies of these Resolutions be sent at once to the Official Organ of the.....State Medical Society, the Journal of the A. M. A. and the Medical Advisory Committee.

(Signed)

Passed.....

(Date)

.....Secretary

WHY THE WORD NECESSARY IN THE A. M. A. ALCOHOL QUESTIONNAIRE

THE REFERENDUM STANDS CONVICTED OUT OF ITS OWN MOUTH AS BEING MOST UNNECESSARY

Has the A. M. A. gone out of its way again to force a false premise upon its constituency in the present alcohol referendum published in the *Journal*? Or have the editors of the magazine lost all their dictionaries? In the referendum the question asked of physicians reads:

"Do you regard whiskey as a necessary therapeutic agent in the practice of medicine?"

Very few components of life are necessary—that is to say absolutely indispensable. When it comes down to fundamentals air, water and food are the three elements necessary to existence.

Beyond that nothing actually is necessary. Clothing, shelter and heat are advisable to the point of desirability and men slave and toil from birth to death for the sake of getting their fill of them. But they are not *necessary*. There is not a drug in the pharmacopeia that is elementally necessary in the true meaning of this word, no matter how advisable or desirable they might be.

Salvarsan is not "necessary," nor is quinine, nor mercury, nor digitalis, nor castor oil, nor creosote, nor any other single one of the drugs and medicaments that every therapist has at his command, but they are all advisable, desirable and productive under varying circumstances of much alleviation of pain, and of great comfort to millions of members of the human race.

The indiscriminate use of whiskey, or any of the distilled liquors is to be deplored as much as is excessive indulgence in any thing that life

holds whether the overindulgence lies in the reproductive faculties, the swilling of enormous quantities of food solids or liquids or in medications. It may be all right for a physician to be allowed to limit the amount of whiskey that a patient shall use, but it is not right for any layman's law to limit the amount of whiskey that the physician shall prescribe nor any other medicament the doctor may consider advisable to dispense.

Why not make a law to tell the surgeons whether they shall use a pair of forceps or a pair of buttonhole scissors when a refractory appendix is about to be brought into this cold hard world? It would be no greater crime to take scalpels away from surgeons than it is to remove from the pharmacy shelves drugs that medical men have tested out through the years. There are times when only whiskey will relieve pain. The condition of the patient in serious complications has been swung from seriousness to comparative ease by the administration of whiskey under proper supervision.

The A. M. A. referendum question compels the honest physician to strain his conscience or his vocabulary.

If the question had contained the word "advisable" in the place of "necessary" the whole questionnaire would have been on a different footing and would be a welcome visitor on the desk of thousands of legislatively harrassed doctors who are doing the best they can to save life while welfare legislators are doing all they can to make it easy for quacks and would-be necromancers to destroy it.

When do we get a questionnaire about quinine? And when, pray, will the surgeon be asked to throw aside his suture needle for a crochet hook because the fashion pages say that "Irish crochet is all the rage?" One could not be more ridiculous than the other is. "Advisable" or "desirable" or "dependable," yes—by all means—but "*necessary*"—under the dictionary and scientific definition of the word the questionnaire of the A. M. A. stands convicted out of its own words as being most *un-necessary*!

It may be fairly suggested that the form of the question is intended to produce results that will back up the action of the House of Delegates at the New York meeting. The use of the word "necessary" has made many physicians answer

"no" who would have answered "yes" had the qualifying term been "advisable."

Few indeed and far between are those remedies that are so absolutely peculiar and specific in themselves that nothing else can supplant them to the slightest degree.

Any fool could have foretold the final result of the referendum; only one result was possible, namely, to show the medical profession divided on the question thus discrediting the profession in the estimation of the public (which seems to be the vogue at the present time). The questionnaire should not have been sent out. But if sent out it should have been worded clearly so as to bring out the value of alcohol as a therapeutic agent.

A CONGRESSIONAL INVESTIGATION OF DRUG ADDICTION PROBLEM

Doctor Lester D. Volk, Representative in Congress from the 10th Congressional District, N. Y., has introduced in the House of Representatives, Washington, D. C., two resolutions known as H. Res. 258 and 259, asking for a Congressional Investigation of the narcotic drug situation.

(Resolution 258 appears in Dr. Volk's address on page 129, this issue.)

H. RES. 259.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 4, 1922.

Mr. Volk submitted the following resolution; which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

RESOLUTION

Resolved, That the Secretary of the Treasury be, and he is hereby, authorized to transmit to the House of Representatives the facts in his possession on which, under date of October 19, 1921, R. A. Haynes, prohibition commissioner, did cause to be set forth and publish a ruling or regulation outlining treatment of "narcotic drug addiction" permissible under the Harrison law, and under section b of the aforesaid rules and regulations entitled "The ordinary addict," stated:

"It is well established that the ordinary case of addiction yields to proper treatment and that addicts will remain permanently cured when drug taking is stopped and they are otherwise physically restored to health and strengthened in will power. This bureau has never sanctioned or approved the so-called reductive ambulatory treatment of addiction, however, for

the reason that where the addict controls the dosage, he will not be benefited or cured.

"Medical authorities agree that the treatment of addiction with the view to effecting a cure, which makes no provision for confinement while the drug is being withdrawn, is a failure, except in a relatively small number of cases where the addict is possessed of a much greater degree of will power than that of the ordinary addict.

"The good faith of the physician and the bona fides of his treatment in a given case will be established by the facts and circumstances of the case and the consensus of medical opinion in regard thereto, based on the experience of the medical profession in cases of a similar nature.

"The following resolution passed by the Council on Health and Public Education of the American Medical Association, at the meeting on November 11, 1920, is pertinent in determining the period over which narcotic treatment should be extended in purely addiction cases:

"*Be it resolved*, That the Council on Health and Public Education of the American Medical Association indorse the principle expressed in the California law (section 8½), which forbids the use of opium and its derivatives in the withdrawal treatment of those addicted to the use of these drugs for a period of more than thirty days after the commencement of the withdrawal treatment."

"This bureau can not under any circumstances sanction the treatment of mere addiction where the drugs are placed in the addict's possession, nor can it sanction the use of narcotics to cover a period in excess of thirty days, when personally administered by a physician to a patient neither in a proper institution nor unconfined.

"If a physician, pursuant to the so-called reductive ambulatory treatment, places narcotic drugs in the possession of the addict who is not confined, such action will be regarded as showing lack of good faith in the treatment of the addiction, and that the drugs were furnished to satisfy the cravings of the addict.

"Doubtful cases, or those not falling within any of the above instructions, upon request will be investigated and special instructions, based upon the recommendations of the inspecting officers, will be issued."

Resolved further, That the Secretary of the Treasury is also hereby directed to inform the House as to the facts (1) on which a curb is placed upon the professional judgment of the doctor treating addiction, (2) which necessitate the direction of medication by the prohibition commissioner or his inspectors, (3) which show the qualifications of the prohibition commissioner or his inspectors charged with this work to pass upon medical treatment of narcotic drug addiction; their association with or knowledge of addiction treatment; or their qualifications as either physicians, dentists, or veterinarians, or their training in the science of medicine or its branches, such as therapeutics, pathology, or as laboratory specialists,

blood analysts, clinicians, or as general practitioners, which would enable them to qualify to pass judgment upon cases of narcotic addiction or issue special instructions with regard to the treatment thereof.

Resolved further, That the Secretary of the Treasury is also hereby directed to inform the House as to the facts concerning the existence of any statute under and by virtue of which the Secretary of the Treasury, or, through him, the Federal Prohibition Commissioner by rules and regulations, is empowered to set aside known facts in medical science and curb the legitimate practice of medicine; and to nullify an Act of Congress, to wit, the Harrison narcotic law, passed in 1914, and which as revised and amended, sets forth in section 1, as follows:

"That the provisions of this paragraph shall not apply . . . to the dispensing, or administration, or giving away of any of the aforementioned drugs (opium derivatives) to a patient by a registered physician, dentist, veterinarian, or other practitioner in the course of his professional practice, and where said drugs are dispensed or administered to the patient for legitimate medical purposes, and the record kept as required by this Act of the drugs so dispensed, administered, or given away."

Resolved further, That the Secretary of the Treasury is also hereby directed to inform the House as to the facts which necessitate denying the narcotic addict the advice and treatment of his family physician, and which under the rules and regulations as issued seek to force him to accept the treatment provided by penal institutions, private sanitariums, and quack "drug-cure" proprietors.

Resolved further, That the Secretary of the Treasury is also hereby directed to correlate and inform the House the facts or addenda covering the following interrogations:

(1) The names or name of the official of the Internal Revenue Department writing section b of the regulations promulgated October 19, 1921.

(2) The qualifications of this person or persons to pass upon the medical treatment or narcotic drug addiction, his association with and knowledge of addiction treatment.

(3) The name or names of the Council on Health and Public Education of the American Medical Association adopting the resolution prescribing thirty days as the length of time which shall not be exceeded in treating addiction by the administration of narcotics.

(4) The status of that resolution in the main body of the American Medical Association setting forth the adoption or rejection of the aforesaid resolution by the American Medical Association in convention assembled.

(5) The medical authorities upon which reliance is placed for the quoted statement in paragraph 2, section b, of the rules and regulations.

(6) Any and all additional facts relating to the rules and regulations, together with any information bearing upon the subject matter of this resolution.

THE ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSOCIATION

HOTEL HEADQUARTERS SCIENTIFIC SECTIONS, A. M. A.

The Local Committee of Arrangements for the annual session to be held in St. Louis, May 22-26, 1922, has designated the following headquarters for the Sections of the Scientific Assembly:

Section:	Headquarters
Practice of Medicine.....	Hotel Statler
Surgery, General and Abdominal.....	Hotel Jefferson
Obstetrics, Gynecology and Abdominal Surgery.....	Hotel Claridge
Ophthalmology.....	Planters Hotel
Laryngology, Otolaryngology and Rhinology.....	Marquette Hotel
Diseases of Children.....	American Hotel
Pharmacology and Therapeutics.....	American Annex
Pathology and Physiology.....	American Annex
Stomatology.....	Warwick Hotel
Nervous and Mental Diseases.....	Majestic Hotel
Dermatology and Syphilology.....	Majestic Hotel
Preventive Medicine and Public Health.....	Warwick Hotel
Urology.....	Maryland Hotel
Orthopedic Surgery.....	Hotel Jefferson
Gastro-Enterology and Proctology.....	Maryland Hotel

CONGRESSIONAL INVESTIGATION OF DRUG ADDICTION AT LAST.

Congressman Volk of Brooklyn, N. Y. (a doctor), in two resolutions in Congress asks for a thorough investigation of the subject. In Congressman Volk's resolutions he makes serious charges against the methods at present followed in handling the subject.

The following resolutions bearing on the subject were passed by the Council of the Illinois State Medical Society January 12, 1922:

WHEREAS, The problem of drug addiction is a serious one. That it is a matter of great importance to the medical profession; to those suffer-

ST. LOUIS' LEADING HOTELS (ALL EUROPEAN PLAN), THEIR LOCATION AND RATES

Hotel, with Number of Rooms	Street Address	Without Bath Single	Bath Double	With Bath Single	Bath Double
American, 275.....	7th and Market Sts.....	.....	.....	\$2.50-3.00	\$4.00- 6.00
<i>Diseases of Children</i>					
American Annex, 225.....	6th and Market Sts.....	.....	.....	2.00-3.00	3.00- 6.00
<i>Pathology and Physiology</i>					
<i>Pharmacology and Therapeutics</i>					
Beers, 114.....	Grand and Olive Sts.....	\$1.50	\$2.50	2.00-2.50	3.00- 3.50
Brevort, 50.....	4th and Pine Sts.....	.....	.....	2.00	3.00
Cabanne, 43.....	5545 Cabanne St.....	.....	.....	12.00-37.50*	.....
Claridge, 350.....	13th and Locust Sts.....	.....	.....	2.50-4.00	4.00-10.00
<i>Obstetrics, Gynecology and Abdominal Surgery</i>					
Hamilton, 160.....	Hamilton and Maple Sts.....	.....	.....	2.00-2.50	3.50- 4.00
Jefferson, 400.....	12th and Locust Sts.....	2.50-3.00	4.00	3.00-8.00	6.00-10.00
<i>Surgery, General and Abdominal</i>					
<i>Orthopedic Surgery</i>					
Laclede Hotel, 265.....	6th and Chestnut Sts.....	1.50-2.00	2.50-3.00	2.50-3.00	3.50- 4.00
Majestic, 200.....	11th and Pine Sts.....	.....	.....	2.50-3.00	3.50- 4.00
<i>Dermatology and Syphilology</i>					
<i>Nervous and Mental Diseases</i>					
Marion Roe, 200.....	Broadway and Pine Sts.....	.....	.....	1.50-2.00	3.00- 4.00
Marquette, 400.....	18th and Washington Sts.....	2.00-2.50	3.00-3.50	3.00-3.50	4.00- 6.00
<i>Laryngology, Otolaryngology and Rhinology</i>					
Maryland, 240.....	9th and Pine Sts.....	2.00	3.00	2.00-3.50	3.00- 5.00
<i>Gastro-Enterology and Proctology</i>					
<i>Urology</i>					
Planters, 400.....	4th and Pine Sts.....	2.00-2.50	3.00-3.50	2.50-5.00	4.00- 8.00
<i>Ophthalmology</i>					
Plaza, 200.....	3300 Olive St.....	.....	.....	2.00-2.50	3.50- 5.00
Roselle, 100.....	4137 Lindell Blvd.....	.....	.....	1.50-2.50	2.50- 3.50
St. Francis, 120.....	6th and Chestnut Sts.....	1.50-2.00	2.50-3.00	3.00-4.00	4.00- 5.00
Statler, 650.....	9th and Washington Sts.....	.....	.....	3.00-7.00	5.50- 9.50
<i>Practice of Medicine</i>					
Stratford, 100.....	8th and Pine Sts.....	1.50	2.50	2.50	3.50
Terminal, 100.....	Union Station.....	1.50-2.00	3.00	3.00-3.50	5.00
Warwick, 200.....	15th and Locust Sts.....	.....	.....	2.00-4.00	4.00- 6.00
<i>Stomatology</i>					
<i>Preventive Medicine and Public Health</i>					
Westgate, 125.....	Kingshighway and Delmar Sts..	2.00	2.50	3.00	3.50

* Weekly rates only.

Dr. Louis H. Behrens is chairman of the Subcommittee on Hotels. He may be addressed at the office of the Local Committee of Arrangements, 3525 Pine street, St. Louis.

The Subcommittee on Hotels requests those desiring hotel reservations to write directly to the hotel of their choice. It also suggests that this shall be done at an early date and that duplicate reservations shall not be made. If difficulty is experienced in securing the desired accommodations, the hotel committee on request will assist in every way possible. Arrangements have been made with the several hotels so that all communications will be referred to the Subcommittee on Hotels in case the addressed is unable to provide the desired accommodations.

ing from the disease of addiction and to the public, and

WHEREAS, The methods pursued in handling the subjects of drug addiction in New York and elsewhere have created a feeling of distrust in the whole problem; that after several legislative investigations in the State of New York there has been left a stigma of suspicion, or rather a stench in the nostrils of the medical profession and with a majority of the lay people from coast to coast who have given the subject an impartial study and investigation, and

WHEREAS, It has been at all times very evident

to those who have watched the operations that the distrust of the whole narcotic problem centers around a certain coterie of New York doctors who are alleged to be financially interested in a stylish sanatorium which exists to treat "dope fiends" and extract enormous fees for alleged fake administrations and preventive cures, and

WHEREAS, At the hearing of the Cotillo Bill in Albany, N. Y., April 5, 1920, judges from New York City, the district attorney from the Bronx and other prominent laymen brought out insinuations against a coterie of physicians interested in a certain stylish "dope fiend" sanitarium which to say the least, was far from complimentary and which certainly left a very bad impression on the audience and the newspaper men present, and

WHEREAS, The outcome of the Cotillo hearing left such an unfavorable impression throughout the country, that it calls for a Congressional investigation of opium addiction and its proper control. The unfavorable impression left at the hearing of the Cotillo Bill was so confirmatory that Senator Cotillo, who sponsored the bill once, withdrew his support and refused to have anything further to do with it, and

WHEREAS, Congressman Volk of Brooklyn (a doctor), who knows the inside of the whole matter and has the real goods as very few men in this country have from personal experience, has asked for a Congressional investigation into the narcotic situation.

Therefore, Be It Resolved, That it is the sense of the Illinois State Medical Society, that Congressman Volk ought to have the support of the honest medical men who want to see medical issues recognized and the profession protected, and, be it further

Resolved, That the Council of the Illinois State Medical Society go on record as approving of a Congressional investigation of the drug addiction problem in the United States as started by Congressman Volk and recommend that the Congressional investigation of the subject of addiction be instituted at the earliest possible moment and that it be conducted vigorously by a committee of unbiased men in order that we may determine the rights of medical men under the present Narcotic law; be it further

Resolved, That copies of these Resolutions be sent to Congressman Volk, to the Department of

Internal Revenue at Washington, D. C., and that a copy be sent to each of our Senators and Congressmen.

PROFESSIONAL GUILDS OF NEW YORK INDORSE CONGRESSIONAL INVESTIGATION OF NARCOTIC ADDICTION PROBLEM

The following were adopted January 11, 1922:

WHEREAS, Doctor Lester D. Volk, a practicing physician of Brooklyn, and Representative in Congress from the Tenth Congressional District, New York, has introduced a resolution in the House of Representatives at Washington asking for a Congressional Investigation of the narcotic drug situation, and

WHEREAS, Conditions have become intolerable in New York City and in the United States by reason of rules or regulations promulgated by the Internal Revenue Department under date of October 19, 1921, seeking to direct the practice of medicine in narcotic addiction by prescribing the length of time addicts shall be permitted at large under medical treatment and otherwise impossibly regulating this matter of medical practice, and

WHEREAS, There exists many methods and formulas for treatment of addiction, and the said treatment and handling of addicts and their so-called cure has been the subject of scientific investigation and debate which has resulted in open controversy in the medical profession without producing any recognized and unquestioned cure for addiction, and

WHEREAS, The effect of these matters has been not only to hamper the medical profession and medical work, but to injure the welfare of the sick and the body politic and add to evils now existing, therefore

Be It Resolved, That this body endorses the resolution introduced by Dr. Volk calling for a Congressional Investigation of the Subject of Narcotic Drug Addiction and places itself on record in support of that resolution.

(Indorsed by Professional Guilds of New York, Jan. 11, 1922, and indorsement wired Dr. Volk also offer to champion resolution if need be.)

RICH, REVOLUTIONARY AND RAMPAGEOUS IS JOHNS HOPKINS HOSPITAL

WHY NOT PROHIBIT THE ADMISSION TO JOHNS HOPKINS HOSPITAL OF ANY PATIENT WHO BRINGS A NIGHTGOWN COSTING MORE THAN A DOLLAR?

The attempt of this moneyed, endowed, trust-bolstered institution to come out and standardize fees for physicians throughout the country is the worst example of walking delegatism that a bossridden country has known in some time. The fees that this institution sets as the maximum for operations or medical attendance make a man shudder. Not at the size of the fee but at the lamentable disregard of hindsight, foresight or any other sort of matured and comprehensive vision that has been called into play in the premise. Johns Hopkins hospital would restrict the fee charged for even the severest laparotomy to \$1,000, or limit medical attendance charges to \$35 per week. Very well—let us suppose that this same laparotomy, or possible medical service has been done for one of the many wealthy women of the country for whom it is nothing to pay from \$500 to \$1,500 for a single gown to a modiste, and that gown only one of dozens in a wardrobe. Step into any shop where wear for wealthy women is sold and question prices. To confine a woman in the country districts from \$15 to \$40 is the usual fee. Even now some women get along without a doctor. There are working girls by the hundreds of thousands throughout the United States today who wear to their daily toil shoes that cost from \$10 to \$25 per pair and silk hosiery that cost from \$3 to \$7 per pair and is shortlived at that. Again one is compelled to ask, "Why start on the physicians?" Surely if a human body is precious enough to be saved to wear a \$1,000 evening gown and a \$50,000 rope of pearls under a fur wrap that has taken from \$2,000 to \$15,000 to purchase to say nothing of the expensive lingerie beneath the gown, a doctor who asks over a thousand dollars operatively speaking or \$35 weekly for medical attendance, to preserve that body for the wearing of this apparel is not the reprobate Johns Hopkins hospital would make him out to be. Consider too, that the doctor who saves that body only gets the operating fee once in a life time or renders life saving medical

service at intervals. The modiste, the furrier and the jeweler "gets his" at least twice and sometimes four times a year. The modes change with the moments. Johns Hopkins has begun at the wrong end. Why not prohibit the admission to the Johns Hopkins hospital of any patient who brings a nightgown that cost more than a dollar or who has her clothing scented with perfume that is priced at \$8 per ounce or has more than a six cent rubber comb among her toilet articles, or dares fetch within the hospital portals a \$15 boudoir cap or a \$700 negligee. None of these is an unusual price for people of means—they are the rule not the exception. It is safe to say that Johns Hopkins has operated on many a patient whose nightgowns alone worn during the hospital sojourn cost more than the fee the surgeon got, and that certainly could not be even approximately covered by a fee of \$1,000. A maximum fee mind you—not a minimum fee. As for the medical fee of "\$35" per week—the very suggestion is too ridiculous for comment.

No doctor wrangles with high prices when the high prices bring good to all. No doctor wrangles against low prices when the distribution is equal. But why in the world pick on medicine? Why charge the doctor \$150 to \$200 per month for a hole of a flat in which to rear his family and then begrudge him the honest earning of that \$150 as the month rolls by?

Bad as is the proposed limitation by Johns Hopkins of the fee for surgical operations, worse yet is the suggestion emanating from the same fountain head that medical fees should be limited to \$35 per week or \$5 per visit. Look at the disparity between what Johns Hopkins thinks is right for the surgeon and what Johns Hopkins thinks is right for the medical man to charge for his services. Why the discrepancy? A medical man saves as many lives in a year as does a surgeon. Typhoid fever, smallpox, pneumonia, influenza, or a desperate case of poisoning can call for as much skill, and surely for more personal effort and attention than an operation for appendicitis.

INFLUENZA SPREADING IN EUROPE

The mortality figures made public on January 20 show no abatement in the outbreak of influenza in the United Kingdom. During the week ending on that date there were 1262 deaths

from the disease, an increase of 443 over the previous week, besides 707 deaths from bronchial pneumonia. The aged are particularly affected, the deaths in London, for instance, including 116 persons whose ages ranged between 65 and 75 years. Greater London is still the storm center of the outbreak, 1021 Londoners having succumbed out of a total of 1262.

GOVERNMENT TAKING OVER PRACTICE OF MEDICINE, VENEREAL DISEASES, NARCOTICS, ALCOHOL THE ENTERING WEDGES

A reorganization plan for the control of liquor traffic is being drafted under President Harding. The New bill proposes the creation of a Government monopoly on the sale of liquor for medicinal purposes, through the Public Health Service, taking the entire trade of whiskey out of private hands and placing it exclusively in the hands of Federal officials. All liquor prescribed for medicinal uses would be dispensed directly by local offices of the Public Health Service, and all excise taxes on liquor would be removed and the Government's revenue come through profit on the sale of the liquor.

OPIUM TRUST AGAIN ACTIVE IN NEW YORK

Charles D. Donohue of the New York Assembly introduced a new drug bill in that house on Jan. 24. The bill is like the old Whitney law except that no department of narcotic control is provided for. The unauthorized possession, sale, distribution, or administering, dispensing, or prescribing, of cocaine, opium or any of their derivatives, or Indian hemp is forbidden. The drug trade is authorized to deal in drugs along the lines provided by the Harrison Federal law, and physicians are permitted (*permitted!*) to prescribe or dispense narcotic drugs under certain restrictions. Hospitals are authorized to treat addicts, and provision is made for committing patients to hospitals for such treatment. Physicians prescribing drugs must write prescriptions in duplicate, and the apothecary is required to file one of the prescriptions, in cities of the first class, with the local board of health, and in other parts of the State with the State Department of Health. The possession by a layman of a hypodermic syringe is declared unlawful.

REPORT OF COMMITTEE ON NARCOTIC DRUG ADDICTION*

Your Committee has given careful consideration to the present-day opinions, as represented by American and European publications, on the question of drug addiction.

The original Harrison Law, with its later modifications and its various interpretations, has been critically examined.

The differing ideas as to the classification of addicts, their total and relative frequency, the dangers to the community arising from their existence, and the present and proposed methods of treatment have been investigated.

Consultations with administrators and physicians of all colors of opinion have added to its information, and have assisted in crystallizing its ideas.

As a result of this study your Committee begs to report as follows:

(1) *The group of addicts variously spoken of as criminals, degenerates and feeble-minded is unwilling and unable to cooperate in the necessary treatment, and should be kept under official control. In the opinion of your Committee, the control of this group is essentially a police problem.*

(2) *The group of addicts who suffer from physical conditions necessitating an indefinite continuance of their use of the drug constitutes a medical problem.*

(3) *Furthermore, the group of addicts in whom the clinical condition, which was the reason for beginning the use of the drug, no longer exists, or who began the addiction for other than clinical reasons, is also a medical problem. These three groups, which include all addicts, do not constitute a public-health problem in the ordinary sense of the word.*

Your Committee feels, however, that in so far as *prevention* of new drug addiction may be considered as a public-health problem, there are two points it would urge:

First, that international measures leading to the reduction of the uncontrolled supply of drugs be taken.

Second, that the importance of the education of the physician as to the dangers of inducing addiction through medical practice, and as to

*Presented before the Joint Meeting of the Public Health Administration, Food and Drugs, and Laboratory Sections, Fiftieth Annual Meeting, American Public Health Association, New York City, November 17, 1921, and adopted by a majority vote of those present.

the best methods of avoiding such dangers, be emphasized.

In view, however, of the *present unsatisfactory state of this medical problem, and of the very diverse opinions* existing as to its bearing upon legislation and police regulations, your Committee believes it to be to the public interest that a research Committee of clinicians, biochemists, and psychiatrists should be appointed with official sanction, to investigate all phases of the question and thereafter to make an authoritative pronouncement on the medical problems involved.

Your Committee further recommends that the Executive Board of the American Public Health Association be authorized to cooperate to this end with other official bodies, should it be invited to do so.

ROGER G. PERKINS, M. D.,
Chairman.

GEORGE W. MCCOY, M. D.
PETER H. BRYCE, M. D.

DISCUSSION

Dr. Haven Emerson: Mr. Chairman, and members of the Section: May I have the privilege of proposing that the report be accepted and its conclusion acted upon? In supporting that motion I wish to say that this is substantially the conclusion that has been arrived at by the Council on Health of the American Medical Association. *In the nature of events, the Council of the American Medical Association has looked at it from a somewhat different point of view.* There may be differences of opinion as to the productiveness of a research on this problem, but one never knows what will turn up from a technical research, and there is always benefit to be had from an impartial survey of any question on which there are differences of medical opinion.

I would be inclined to go further with regard to the recommendations that have been submitted. The report mentioned international control, recognizing that that is of course the first step, and the absolutely fundamental step. I do not think that in any way prevents nations or states from taking an active part in the control, as the report suggests international bodies should.

Further than that, it seems to me that it would be of advantage perhaps, coming from a medical professional body exclusively, that we should indicate that a large part of the local control should bear upon the control of physicians through the issuance of licenses to practice, and that there is a substantial responsibility of the licensing board of our state, and those who maintain the standards of medical practice, to see that their power is exercised to properly control the use of the drug, and to prevent use of it by physicians who abuse their professional privilege. Men of that sort should be stopped at once, and it is the duty

of the local committees and the board of health to see that they should be stopped.

I would call attention to the fact that we believe that the existing national laws are unnecessarily hampering to the practice of medicine, and certain improvements in those laws should be made, and I see no impropriety in the American Public Health Association joining with the American Medical Association in endorsing a law that the use of codein should not be subjected to the limitations that are now in force.

And I suggest that we should jointly request the release of apomorphin from the restriction that is now placed upon it.

In these ways, I think we can go back to a more reasonable administrative control. Furthermore, I think there is a serious injustice in making the practice of medicine bear the burden of a revenue law which did not contemplate imposing on physicians the burden of adding income to the government in the course of carrying out their profession.

Judge Cornelius F. Collins: *My impression is that the difficulties with regard to the regulation of the drug situation are due to the governmental or sociological side of it. I think we are in a bad state of affairs, where doctors have been intimidated and terrorized, where they have not been permitted to engage in their practice in accordance with the dictates of their best judgment.*

I feel also that some doctors have been too timid and have failed to perform their duty in the way that laymen understand their oath requires them to perform it. A sick man is entitled to treatment. A person who is suffering is entitled to treatment.

We understand the Harrison Law to mean that a doctor could, in the legitimate practice of his profession, treat in accordance with the dictates of his judgment, the only requirement being that of good faith. The law of the state of New York preceded the Harrison Law, and we acted on that theory.

I have some figures which I wish to call to your attention, that will bear out the argument which I am about to make. In 1913, the Cocaine Law went into effect, and when that went into effect it opened up a sore in judicial life. The prosecutors of our different counties did not know the extent to which the drug evil had expanded, and with the enforcement of the Cocaine Law, the police gathered up a large amount of sufferers from heroin. They were brought into the courts; we had no law with which to punish them.

In 1914 we passed the law. The law as it read in 1914 gave the impression to some of the medical men that they were forbidden to prescribe drugs for the treatment of this habit. That impression was wrong. It was assumed that the doctor had the right to treat.

In 1914 we had 1,415 cases in Special Sessions. In 1915 we had 1,503 cases, and in 1916 we had 1,686 cases. This was 10 per cent. of the whole business of the court. The courts were cluttered with a large number of drug addicts, coming in from what might be termed the underworld type.

In 1917 there was a fall, because in the meantime

a statute had been passed regulating the right of the practice of *doctors and calling specifically to their attention the fact that they had the right to treat drug addicts*; and the statute was further amended in the next year giving a more detailed direction to the medical profession as to the manner of procedure. This excited some opposition because of the regulation which required the making out of a triplicate prescription blank.

In our courts, due to that statute, we had an investigation made, with the result that the bill was adopted. It was the consensus of opinion of the joint committee of lawyers, doctors, and judges, that the report of Senator Whitney should be adopted. After this bill was passed, the cases dropped to 540.

In 1918 a new law was passed which went into effect in 1919, and notwithstanding the fact that the law made regulations, *right on top of that came regulations that were made by the power appointed under the statute*. In other words, the federal government makes regulations through the Commissioner of Internal Revenue, and in our state we have a Commissioner of Narcotic Control.

What I am about to state is not a criticism. When the law went into effect, the *Department of Health persuaded the authorities that the best thing to do was to have a registration of the individuals who were subject to narcotic influences*, and the putting into operation (of this registration) caused the people to collect in New York and to wait in line to be registered, so as to get their daily quota. It was properly decided that there would not be given a continuance of the doses, and that there would be a reduction, but this reduction was made arbitrarily from day to day. *In other words, rules were taking the place of medical science.*

That is what happened, with the result that there was immediately an increase in the number coming into our courts, because the people started to get drugs illicitly. *It follows that where you prevent the medical profession from exercising its true function, the peddler will get busy, and the person desiring to obtain the drug unlawfully will get it, no matter what he has to do, and he will thus be classed as part of the underworld when he is nothing of the sort.*

You men know that a number of these drug addicts cannot be classified as degenerates. A number of them are the victims of ignorance of the qualities of the drugs that are being administered. Many years ago heroin was given for headaches, and people could buy it in a drug store without interruption. On top of that, the number of men who were drug addicts in the underworld increased. The opportunities of obtaining drugs illicitly increased. The addicts of what we might call the upper world got the drug anyhow. They went outside of the city to get it, and in the next year they brought something entirely new on us, a bill which was intended to prevent a doctor from prescribing drugs for the treatment of drug addiction.

This was intended to prevent a doctor from treating. In other words, it was the purpose of the law to

enforce and make mandatory, treatment in hospitals. That would mean what? In the city of New York we have 40,000 drug addicts. Have we got hospitals to put them in? No. The Smith Bill would have contemplated that. And they said something about contagious or infectious diseases, and gave the power to treat addicts as if they were infectious diseases.

They repealed that law, and left us in the state of New York without a law to stand on. The result is that we had to proceed without a law. *The doctor was intimidated. There were two men in the District Attorney's office that told the doctors that the only way that the law could be interpreted was that they could not exercise their profession at all, unless it was inside of a sanitarium or a hospital, which is absolute nonsense. And one man of the Board of Health has fostered this, and some one outside has fostered it, and I believe he is a fanatic.* The law was repealed. We got a Sanitary Code amendment.

Because I have been eight years working on this situation at the head of a committee. I have naturally imbibed some pretty strong convictions, and I do not want to give the impression that I am not open to reason. But I think that my views on the subject have been substantiated by events.

Between a certain date in May and a certain date in July of this year we did not have any law at all. The Harrison Law operated in this state as well as others, but they could not seize for possession. You men in New York City know what the slums are. But you men outside have no idea what a harvest the peddler reaped in that time, and what schemes they resorted to in the way of smuggling in the goods and the prices that they exacted.

On the 25th of July we managed to get a local statute or health ordinance adopted. The cases increased from fourteen in June to ninety-four in July and three hundred and sixty-four in August, and then dropped to two hundred and one in September, and a hundred and ninety-one in October.

So that the facts are these: Under this new ordinance the physicians had the right to practice and to treat drug addiction, provided they adhered to the Harrison Law. In the law which the committee proposed, we told what the doctors might do, and said that they could practice and the kind of prescription blanks they would have to use, but that was cut out. *And then came the false and erroneous interpretation, telling the doctors that they could not do what the Harrison Law told them that they could do, and that they had to accept the interpretation of two men in the District Attorney's office. These men said that you cannot treat if you have an ambulatory practice; that is, that you cannot give ambulatory treatment. That is wrong.*

I have been told that in the amendment of the federal regulation they give thirty days. *Medicine has ceased to be an abstract science. A man who is an internal revenue officer can fix by statute how long it should take.* After all, what are these regulations for but to cure the social evil? I have heard the re-

port of some associations with which I have been associated, men engaged in the crusade against the drug evil, and I was astounded that they took the side that they did, and my impression is that just such a resolution as that which was read today will reach somewhere.

The resolution will bring the medical men and the sociologists together, and those who have to make the law also, so that we can get something great, *so that men will not be terrorized, so that we can get the Attorney General to tell us what he means by regulations.* If you do not, there is an evil besetting our community. The purpose of this law is not to harass the drug addict, the purpose of this law is not to treat him as a criminal. It is to treat the improper use of narcotics. *We have fallen into the error of regarding an addict as a criminal. Some of them can be on the other side, fighting for us.*

I want to say this: I believe that custodial care is the best. I believe you have reached a period where you have got to have custodial care. But in the test of two months of hospitalization of the treatment of this habit, they lose sight of this, that over 90 per cent of those who have been treated in the hospitals have after release had a relapse, and that there has been just as much success in the treatment of this habit by the general practitioner as there has been in the hospitals.

Dr. Royal S. Copeland: I have been very much interested in the comments of Judge Collins. I am not clear yet whether he condemns the Health Department of the city of New York, or whether he commends it. He apparently commends the Health Department for enacting some amendments to the Sanitary Code which would make it possible to deal with this problem, and he apparently condemns us for having had a system of registration.

Even judges have short memories. My early instruction in this subject came from this speaker. I remember he was one of those who proposed the registration. Probably these things have no bearing on the problem.

We have a great problem which to my mind is a public-health problem. Judge Collins says there are 40,000 addicts in the city. I do not know how many there are. When we had this system of registration, about 10,000 registered. We have taken 3,000 through our hospitals at Riverside. The Judge said 90 per cent of these have lapsed. I do not suppose the percentage is important, but it is very much less than that. I think that 50 per cent would probably be more nearly correct.

We are only picking leaves. We discussed what to do with this problem, when it is to my mind as simple as anything in the world. The reason why we have a narcotic problem is because we have narcotics. Two years ago we imported into this country 546,000 pounds of opium. I thought because of all the agitation here, and the tricks of the sight-seeing people, and the creation of sentiment, that we would get a marked decrease in the amount of narcotics brought in, but as

a matter of fact we brought 640,000 pounds, that is, fifty grains for every man, woman and child in the United States, and there is no other civilized country on the face of the earth where the importation of opium exceeds three grains per capita. In other words, we are bringing in sixteen times as much opium per capita as any other country.

Don't you see the problem? Why do they lapse? There is nothing that makes me so disgusted as to have somebody get up and say there is something mysterious about this problem. You can take any patient off the drug in ten days without suffering. Why do they relapse? Because this patient does not have any moral regeneration, and when he comes back into the society of his family, the first time he has any physical disorder or suffering of any sort, or moral disorder, he goes back to the drug. Why does he go back to the drug? Because he can get the drug.

What will we do about it? To my mind the remedy that is proposed in the report today is all right, if you do not care when you settle it. You appoint a commission and God only knows when the commission will arrive at any conclusion. Haven't we thought about this long enough, so that we know what to do about it?

I would have this country, through its Public Health Service, determine arbitrarily the amount of opium which it should receive. We will suppose that it is 25,000 pounds, and that that is ample for our needs, instead of 640,000 pounds. I would have that manufactured under the auspices of the government, and then dispensed through legitimate channels, just as we do whiskey today. I think any legitimate physician should get any morphine he needs, and then I would say that this country should absolutely prohibit the exportation of opium and its derivatives.

What happens when this stuff is exported? It is shipped to Canada, where we lose track of it, and it is smuggled back into this country and sold on the streets of New York. One-half of all the addicts in this city are under twenty-five years of age, and one-third are under twenty years of age, and yet we are permitting this damnable business to go on when by a simple act of Congress this whole thing can be done away with.

Why do we spend our time talking about conditions when this great organization can say, "We demand the suppression of a traffic more dreadful in every respect than the liquor traffic"?

Dr. James F. Rooney: I have been very much interested and very deeply moved by the orations which we have just heard. I feel that the time has come in this question when appeal should not be made to sentiment, when exaggeration should not be indulged in on either side, when the real, true aspect of this minor health problem should be considered upon an unemotional basis.

What have we actually, in regard to the problem of drug addiction? And here now I want to say that I most heartily wish to second the motion for the adoption of the report of this Committee, and to con-

cur in Judge Collins' statement that it is the first real, honest, scientific attempt to investigate this problem that I have heard in any medical society in this country.

I have been associated more or less in a legislative way with this question for the last eight years. And there are two contending forces in this country, neither of which is right. Because neither of them are basing their statements upon real facts and statistics and study.

So far as I know, there has not been in this country an honest, clinical investigation of the drug addiction problem, *whether it be a disease or a habit*. There has been some investigation on the Continent. But none of the investigations in the United States have been at all conclusive, *and especially is that true of the latter ones*.

Before you can discuss this problem, you must know whether the addict is merely a person with a vicious habit, or whether as a result of taking into the body of doses of a drug, that that individual has developed pathological physiology. *If that question is not determined, you do not know what the question means as a medical problem*. The police problem is a separate and distinct problem, and must be dealt with in an entirely different manner.

This Committee's report asks that the questions be investigated, and I believe that we will waste no time, but that time will be gained if this investigation is carried on. I am not stirred, I am not moved by the talk of 10,000 or 40,000 addicts in the city of New York. I remember five years ago when the question was before the legislature that the statement was made that one-fifth of the population were addicted to narcotic drugs. As these questions are investigated, they dwindle until we come to the estimates that we hear this morning, which are probably more or less near the truth.

I want to, in proof, read you a recommendation that I made this spring in the discussion of this matter before the Medical Society of the State of New York. It was a discussion of this bill of which Judge Collins spoke, *which prohibited the treatment by any physician of any persons who had narcotic addiction, outside of the hospital or institution. I stated that this bill is not a local one. The attempt is being made to have the regulation promulgated by a federal bureau, to give that act the same force as this bill had, if it became a law. Within the last two weeks that bill has been put into effect by the regulations of the Bureau of Internal Revenue*.

I confess I agree with Judge Collins that without any question the treatment administered to the two classes of addicts must be essentially different, and roughly addicts can be divided into two classes, *the criminal and the non-criminal classes. Without any question, the only way a criminal addict can be controlled is in institutions*, and even after, it seems there are instances of relapses. The Commissioner of Health of the state of New York says that over 90 per cent of all the cases of drug addiction relapsed, and when

Governor Miller asked Commissioner Biggs whether he himself knew of a case of drug addiction being cured, he said, "I do not know."

If that is true, who is responsible? The medical profession is responsible. We have had the drug problem on our hands for a number of years. Have we attacked the problem as we should attack it, or are we going to consider this thing as the venereal-disease problem was considered up to five years ago, as a moral question and not as a medical one?

Dr. Ernest S. Bishop: I repeat the endorsement of the report. I agree with the previous speaker that it is an absolutely scientific report. You do not know how you are going to handle a thing until you know what it is that you are going to handle. I agree with Judge Collins that we have an entirely different problem in the two different classes of addicts sociologically separated. I do not believe any man is in the position today to speak ex cathedra and ultimately as regards addiction and its ultimate characteristic. In my writings, as everybody knows, I have regarded addiction per se as a body condition. I have called it a disease. I believe it is a disease.

But I do not believe that in the case of the underworld, in the case of the man who is a menace, sociologically speaking, that this disease problem is the main thing, and I do not believe that in the man that is not of the underworld, that any other indication is the main thing. I do believe that eight years' experience has proved that. We have been through eight years of all kinds of experiments. We have tried every possible experiment in the last eight years. We have tried all kinds of determinations on the ground of narrow lines and have failed. We have tried on the broader lines and they have failed, and the trouble is that we have to strike in the middle of the rope. We have to treat the criminal as a criminal, and we have got to handle the peddler, and we have got to study the problem.

We have used words loosely. *We have used the word "cure." We do not know what cure is*. We have not arrived anywhere. Is an addict cured after you have taken him off his drug, and for how long is he cured, or is he not cured? You can ask that question of typhoid, and you have to answer your addiction idea as you have got to answer your typhoid question. *He is cured when he is cured, and until you understand your condition, you do not know whether he is cured or not*. You have no basis of judgment.

There are arguments on every point in this thing. There is not a point that you can bring up, over which you cannot scrap. And that has been the trouble all this time, that we have not been working, but we have been scrapping.

Dr. M. P. Ravenel: I was delighted to hear Dr. Emerson second this motion. *It is opposed to the report made before the Council of Health and Public Instruction in the American Medical Association, of which committee Dr. Emerson was a member*.

That committee of the American Medical Association was appointed for a specific purpose, and as far as I

have been able to study that report, it did not touch the purposes for which it was appointed, but instead of that went into an entirely different question.

As regards the first proposition, that this Association join with the American Medical Association in exempting codein, I trust we will not do it. I do not think the evidence on which Dr. Emerson makes that statement is sound. There is an abundance to the contrary, and I think we should do as the committee proposes, and that is to study it, and, *for God's sake, do not let us join with the American Medical Association on this question.*

Dr. Jacob Diner: It is needless to say that a man who has had an experience of thirty years must have come in contact with the narcotic situation. It is also needless to add that the lucid remarks of Judge Collins, than whom there is probably no one who has given greater study to this subject, deserve a great deal of thanks on behalf of every man who is interested in his fellowman.

But we have been discussing whether drug addiction is a disease, or whether it is an evil, or whether it is an infectious disease or a moral disease. All of these things are important.

But the most important thing, it appears to me, is the answer to the question, Why is it that in spite of all the rules and regulations which have been made and interpreted, the consumption and the importation of narcotics, as illustrated by figures given by Dr. Copeland, has increased?

Why is it that we have more and more narcotics brought into this country, and bear in mind that we take into consideration the drugs which are imported legitimately and are recorded. We do not take into consideration the quadruple quantity which is smuggled into this country. Doesn't it strike you that the interference with the legitimate practice of medicine has created a demand, and that the law of demand and supply has come into play there? That where the honest addict, not the eriminal addict, has found his family physician, because of fear of imprisonment, refusing to treat him, that he has only one choice, or perhaps two, either to become registered in the Board of Health, or go to the underworld, and as long as he has the money, he will go to the underworld, and while treatment is being refused to him, there will be a continual supply of the drug, especially when there are such high prices being paid for it.

It seems to me that the recommendation of this committee is the first sane and safe one that has been recommended before any body of professional men interested in the subject. It seems to me that what has been brought out *proves that there should be an investigation, not by a closed organization, not by a small body of men whose preconceived ideas on this subject will prejudice them along certain lines.* Let us have an investigation by an unbiased and fair-minded body of scientific men who will first determine what is drug addiction, and then recommend steps which will enable them to handle this situation clearly and intelligently.

And above all, don't let us permit the restriction of practice of the legitimate practitioner. I think every man should be entitled to an opportunity to go to his own doctor.

Dr. John N. Hurty: It appears to me that we disregard, in our efforts to solve all of these problems, a fundamental principle. Neither by law, nor by education, nor by prayers, can you change the human character. You cannot instill noble and high ideals into men. The roots of them must be there.

There are some men possessed of passions that they can hardly control and do not control. They have no moral force to control them. We endeavor to stop stealing by law. We hold it down, but a thief is a thief, just the same, even if he has restrained himself from stealing.

I found thirty-seven bank cashiers in the Leavenworth Prison, and all of them were Sunday-school teachers, and had been teaching morals, and yet they were thieves. They had been teachers of morals, trying to instill them into children, and yet they themselves were thieves.

You cannot regulate this subject by law. We can restrain it and hold it down. "We blunder on through love and hunger, and always will." That remark struck me forcibly indeed. "We blunder on through love and hunger." Those are the controlling forces of this world.

The evolutionists tell us that one day two highly organized cells came together, seeking enjoyable sensations. And from that sprang all life. Two highly organized cells, where they came from they do not know, seeking pleasurable sensations, joined, and behold, life on this earth appeared.

I have been behind the drug counter in my early days, and I have studied these things from the point of view of the physician and the point of view of the sanitarian, and you may put this down, that a sanitary problem cannot be solved by caring for the victims of insanitation. You have got to get down to the cause, and that is the only way to solve it. You must find what is the cause of the trouble, and attack that, and in that way you can solve it. By merely attacking the result, as we have been doing for the past several years, you absolutely get nowhere but increase the trouble.

I agree with Dr. Copeland. Let us do away with the damnable stuff.

Dr. Lyman F. Kebler: I do not know whether you want to prolong this discussion, but I think it is a particularly vital and interesting one in many ways.

When the law became operative and required declaration of the morphine on the label, we were surprised to find the extent to which it was used. First came the soothing syrups, most of them having morphine or some opium derivative. Then was brought to our attention the situation that so-called treatments or cures for the opium habit had opium in them, or had the drug which they pretended to cure.

The Food and Drugs Act covers the idea that a

product is a drug if it is intended for the cure of a disease. It was not very difficult to handle soothing syrups on that basis because many of them were used to a certain extent to treat certain abnormal conditions in children. We proceeded against those products and we have a thoroughly creditable piece of work to our credit.

Then came up the preparations which I have indicated, of which there were twenty alleged cures for drug addiction. We entered into correspondence with these people, and found exactly what they were doing. Dr. Wiley was in charge of the work. I told the proposition to him. He said: "Here is the situation. These people are pretending to cure drug addiction in all phases with the very drug that they are trying to cure right in the treatment itself. Drug addiction has not been considered by the medical profession as a disease. There is some doubt about it." He said: "I shall decide in favor of protecting the public," and he said, "Go to it, and clean them up," and we cleaned them up. They soon stopped sending those products into inter-state commerce. We were able to get at them through the law which prevents the misuse of the mails. However, it is sometimes very difficult to reach these products, because they are distributed all over the country.

Then we brought the matter to the various departments in the various states and told them what was in these things, and suggested to them the denial of the mails, and it was done. That cleaned up the business.

Now, regarding the pity for some of our medical men, I want to say that while the vast majority, in fact 99 per cent of the medical men, are practicing their profession honestly, the men that we have the most trouble with in our work are medical men. They are the ones that fought us regarding the enforcement of the law, and they carried the case to the Supreme Court, but they lost and that ended the business.

I am interested in Dr. Emerson's idea not to put the enforcement of this problem into the Treasury Department. I came fairly closely in contact with these officers and they have no desire to have that law. It is distasteful to them. It is an unpleasant thing, and if anybody knows where it can be handled better, where it can get better results than those obtained by the Treasury Department, put it there, because they will be only too glad to get rid of it.

Dr. C. E. Terry: I just wanted to state that about six months ago there was organized in this city a committee known as the Committee on Drug Addictions. The field of that committee was somewhat along the lines suggested in the report by Dr. Perkins, namely, to make a broad, comprehensive study of all the facts and alleged facts relating to drug addiction and its medical, social, and other aspects.

The committee is composed of Dr. Katharine B. Davis, who was formerly Commissioner of Correction of New York City; Dr. Thomas W. Salmon, Dr. William F. Snow, Dr. George W. McCoy, Mr. Willard S. Richardson, and Mr. Raymond B. Fosdick, and this

committee is searching through medical and other literature, through questionnaires, through every possible source of information, for data on this subject, which will lead to a sane and rational consideration, and will be of help to the committee and to the public.

The committee desires that members of this Association who have material of interest in regard to this subject, kindly submit this material to the Association. It will be of the greatest help to us in solving this problem.

The foreign medical literature is gone into exhaustively, and a great many facts, not published in this country, and not known, are being uncovered and accumulated.

The non-partisan study of the situation is exactly what the committee had in mind when it began this work, and I would thank the Association very much indeed if they would submit to the committee any material that it might be able to use.

Dr. John P. Davin: I want to congratulate the American Public Health Association upon the report that has been submitted to it, and which has been so well seconded. I think it will make a monumental mark of the fiftieth anniversary of the foundation of this Association under the head of our beloved Dr. Stephen Smith.

You have placed the matter where it belongs. Three years ago, at the American Medical Association, I asked Dr. Guiteras of Cuba: "How do you solve the drug problem of Cuba?" He said, "We have a medical profession, and we have the police." In the United States we have a medical profession that is somewhat afraid; we have a pharmaceutical profession that is struggling to keep itself alive, and we have a police about which there are various opinions.

I want to protest strongly against putting this burden on Congress. Congress today is struggling with the momentous question of whether the physician should prescribe a bottle of ale or stout for his patient. It has also the question of maternity in consideration. A long time ago a certain man said, "Suffer the little children to come unto me." Congress asks to have the baby unborn brought into their care. Do not ask Congress. We have all kinds of associations and assemblages battling with this question. The last one, if I may state it, is the K. of C. and they are going into the question of solving the drug problem in institutions under the leadership of a distinguished attorney. *The trouble has been that we have had too much district attorney.* We have not gone to the trouble of investigating what has been done in Europe in regard to this problem, and consequently we have gotten nowhere. If we would do something of that sort and find out what Europe has been doing, it might be of great help.

The trouble is a purely American trouble, and it is founded on a treatment. We began with a cure. If we never had had a cure for the drug habit, we would not have had this trouble. The treatment is going on now from Atlantic to Pacific in every state of the United States, and nothing has been accomplished yet.

SHALL WE SOCIALIZE MEDICINE?

The members of the medical profession, for the first time in their lives, are beginning to realize the necessity of being on guard to prevent the acceptance of various schemes proposed ostensibly for the benefit of the public good but in reality offering a means of socializing the practice of medicine. We have been lending our support to the public health work of every description, and very justly so as long as the public health work has been conducted along the lines followed in years past. However, at the present moment there is a tendency on the part of many of the public health officials to so broaden the field of public health work as to make serious inroads into private medical practices and trample upon the toes of the doctors who depend upon their professional work for a living. In fact, it was demonstrated at the Boston session of the A. M. A. that what we had most to fear in much of the so-called uplift work that is detrimental to the medical profession at large is the attitude of public health officials. They stood shoulder to shoulder for some action on the part of the A. M. A. that would be not only economically detrimental to the medical profession at large, but in many instances would prove positively vicious. By all means let us be on our guard as to who shall represent us in the House of Delegates at the A. M. A. sessions and who are to serve as officers of the parent organization. We have had quite enough of the Lambert stripe and satellites.—*Jour. Ind. State Med. Assn.*

THE SHEPPARD-TOWNER BILL IS UNCONSTITUTIONAL

"No man who has sworn to support the Constitution can conscientiously vote for what he understands to be an unconstitutional measure, however expedient he may think it."—*Abraham Lincoln (Cooper Union, Feb. 27, 1860).*

Eminent lawyers of both parties contend that the Sheppard-Towner Maternity Bill is unconstitutional, notably Representative Thomas U. Sisson, Democrat, of Mississippi, from whose speech in the House of Representatives, November 19, 1921, we quote:

"Now, of course, in the time given me I can not discuss every feature of this bill, but I do want to call your attention at the outset to a fact, and in doing so I hope you will kindly excuse me when I

refer to the Constitution. I know that in mentioning this instrument to this body I am venturing upon most dangerous ground. While we take a solemn oath here to support the Constitution of the United States, without any qualification or mental reservation whatever, most members go down and take the oath and forget about it and say, 'If it is unconstitutional, the Supreme Court will say so.' They thus 'pass the buck,' to use the slang of the street. Of course, that is not the oath we take. We have no right to ignore the Constitution in this way. We should exercise that courage that the fathers of the Republic expected and hoped we would exercise and thus insure our liberty and the perpetuity of our government. *I do not believe that this bill is constitutional, nor do I feel that as to the legislative provision in it there is a man on either side of this aisle who can convince anyone it is constitutional.*

Mr. Clouse: Will the gentleman yield?

Mr. Sisson: Yes; briefly, please.

Mr. Clouse: Under section 8, of Article 1 of the Constitution of the United States, does not the gentleman think the Congress would have power to make such an appropriation, in that it is authorized to make appropriations for the defense and general welfare of the United States?

Mr. Sisson: I expected my friend to take refuge behind that clause, for that is the refuge of all who evade the real purpose of the Constitution and to justify every piece of bad legislation; but the Supreme Court of the United States every time it has had a whack at it said that you can not make this clause a grant of power, because if you did you have eliminated the entire Constitution. * * *

If you had the right to make appropriations under what is termed the general welfare, then any legislation would be constitutional if the individual Member of Congress should say, "Well, I think it is for the general welfare." It does not mean thereby that Congress can make legislation for the general welfare unless—one minute, now—unless it has been so expressly provided in the Constitution. (Applause.)

While I am on the question let me say to you that the preamble of the Constitution uses exactly the same words "General welfare," and in the use of that language the court has always said we have got to have the same definition of the same language in every clause wherever it occurs in the Constitution. It can not mean one thing in one place and another thing in another. In the preamble of the Constitution the term "General welfare" is used and is simply a statement of purposes and why the following Constitution was made. It is then a term expressing a grant of power. It can not be contended that the general-welfare clause then is part of the powers of the Constitution. If so, there is not one of you, be he lawyer or layman, but knows the very moment a court would put that construction upon it then you have eliminated and destroyed the Constitution entirely, because whatever you think is for the general welfare would then be unconstitutional. (Applause.) Therefore, you would

have no Constitution. So I do not believe any lawyer in this House, from whatever section he comes or what his politics, believes that that construction can be placed upon it. Now, I say this much about the constitutionality of this bill and for the justification of my position I could rest it there. * * * Surely no man would say in this House that when he took this oath he took it *with a reservation*. Surely no man here will say that in taking that oath he took it with the understanding that the general-welfare clause being part of the Constitution he can vote for anything he pleases and put it under that clause."

Other opinions, *advising legal action*, by gentlemen who happen to be Republicans from a state a thousand miles north of Mississippi, are as follows:

"The general-welfare clause of the Constitution has been distorted out of all reason. Sometimes I think that Chief Justice Marshall more than neutralized all the benefits his decisions brought when he strained the general-welfare clause so far as he did. It is quite conceivable that, as things are going now, that clause may result in the complete elimination of the Constitution and the destruction of our form of government. I will take up with * * * at once the question of contesting the Sheppard-Towner Bill."

"I hope that some action will be taken promptly to test the constitutionality of the Sheppard-Towner Bill."

* * * If I can be of any assistance in the matter of such an attempt to bring proceedings in court, I shall be very much pleased."

"Now that the Sheppard-Towner Bill has been passed, I hope that proceedings will be started to test the constitutionality of that measure. It seems to me that the question is of prime importance whether legislation of that sort dealing with subjects of a purely local nature, and forcing the states by the requirement of equivalent appropriations, to spend money for purposes which are not approved by many of the states, is within the power of Congress. I should like nothing better than to be associated in an undertaking to present before the Supreme Court the contention that such legislation is not within the purview of the Constitution."—*The Woman Patriot*.

HOW THEY VOTED ON THE MATERNITY BILL

Repeated requests from members of the profession throughout the state for a synopsis of a vote on the Sheppard-Towner Maternity Bill by the Illinois Senators and Congressmen have been so numerous that we publish the following for the information of the doctors of the state. In addition to the above we also give the number of the districts as well as the names of those who voted for the bill.

Those voting for the bill are as follows:

Senators

Medill McCormick.

Wm. B. McKinley.

Congressmen

E. W. Sproul (three).

J. W. Rainey (four).

F. A. Britton (nine).

C. R. Chindblom (ten).

C. E. Fuller (twelve).

W. J. Graham (fourteen).

E. J. King (fifteen).

C. Ireland (sixteen).

F. H. Funk (seventeen).

J. G. Cannon (eighteen).

G. L. Shaw (twenty).

W. A. Rodenberg (twenty-two).

E. B. Brooks (twenty-three).

T. S. Williams (twenty-four).

E. E. Denison (twenty-five).

Ex-Governor Yates, now congressman at large, in a letter to Dr. Fiegenbaum states his position on the bill as follows:

Washington, D. C.,

Dec. 16, 1921.

Dr. E. W. Fiegenbaum,
Madison County Medical Society,
Edwardsville, Ill.

Dear Doctor: An accident prevented me from voting on H. R. 10925 commonly known as the Sheppard-Towner Maternity Bill. It happens that my vote would have made no difference as there were only 39 other members voting No, as against 300 voting for it. Had I been present I would have voted No. I think the Bill was well intended and that its authors are great men. I did not agree with the principle involved.

Very truly yours,

Richard Yates,

Member-at-Large.

BOUNDARIES OF ILLINOIS SENATORIAL DISTRICTS—PRIMARIES WILL BE IN

APRIL, 1922

ILLINOIS SENATORIAL DISTRICTS

Dist.

1. From Lake Michigan west and south along the Chicago river to 22d street, east to Clark, south to 26th, west to Princeton avenue, south to 32d, east to South Park avenue, south to 33d, east to the lake, northward along lake shore to river. (South side.)
2. From South Racine avenue west on Madison to North Asland boulevard, north to Washington boulevard, west to Western avenue, south to 12th, west to California avenue, south to 16th, east to Laflin, north to Taylor, east to Loomis, north to Van Buren, east to South Racine avenue, north to Madison. (West side.)
3. From Clark west on 22d to river, southwest along river to Halsted, south to 34th, east to Union avenue, south to 35th, east to Parnell avenue, south to 39th, east to State, south to 43d, east to Lake Michigan, northwest along lake shore to 33d, west to South Park avenue, north to 32d, west to Princeton avenue, north to 26th, east to Clark, north to 22d. (South side.)
4. From State street west on 39th to South Cicero avenue, south to 55th, east to Rock Island tracks, south to 57th place, east to State, north to 39th. (Southwest side.)
5. From Lake Michigan west on 43d to State, south to 71st, east to Cottage Grove avenue, north to 63d, east to the lake, northwest along lake shore to 43d. (South side.)
6. From Lake Michigan west on Devon avenue to Clark, south to Irving Park boulevard, east to Racine avenue,

- south to Fullerton avenue, east to Halsted, south to North avenue, west to river, along river northwest to Belmont avenue, east to Western avenue, north to Devon avenue, west to Kedzie, north to Howard; also all that part of the town of Evanston lying outside the city of Chicago, and those parts of the towns of Niles and New Trier lying within the city of Evanston. (North side.)
7. Towns of Thornton, Bloom, Rich, Bremen, Orland, Lemont, Palos, Worth, Lyons, Stickney, Proviso, Leyden, Elk Grove, Schaumburg, Hanover, Barrington, Palatine, Wheeling, Northfield; that part of Niles outside the city of Chicago and outside the city of Evanston; that part of New Trier outside the city of Evanston, and those parts of the towns of Norwood Park and Maine outside of Chicago, all in Cook county.
 8. Lake, McHenry and Boone counties.
 9. From Halsted street southwest along river to Hoyne avenue, north to 16th, west to California avenue, south and southwest along C., B. & Q. tracks to Clifton Park avenue, west to Central Park avenue, south to Illinois and Michigan canal, southwest to 39th, east to Parnell avenue, north to 35th, west to Union avenue, north to 34th, west to Halsted, north to river. (Southwest side.)
 10. Ogle and Winnebago counties.
 11. From State street west on 57th place to Rock Island tracks, north to Garfield boulevard (55th street), west to South Cicero avenue, south to 87th, east to Western avenue, south to 107th, east to Halsted, north to 103d, east to Stewart avenue, north to 99th, east to State, north to 57th place. (Southwest side.)
 12. Stephenson, Jo Daviess and Carroll counties.
 13. From Indiana avenue east on 138th to Illinois and Indiana state line, north to Lake Michigan, northwest along lake shore to 63d, west to Cottage Grove avenue, south to 71st, west to State, south to 99th, west to Stewart avenue, south to 103d, west to Halsted, south to 107th; and all that part of the town of Calumet lying outside the city of Chicago. (South side.)
 14. Kane and Kendall counties.
 15. From the river west on Maxwell to Johnson, south to 14th, west to Throop, south to 16th, west to Hoyne avenue, south to Illinois and Michigan canal, northeast along canal and river to Maxwell. (West side.)
 16. Marshall, Putnam, Livingston and Woodford counties.
 17. From the river west on Van Buren to Loomis, south to Taylor, west to Lafin, south to 16th, east to Throop, north to 14th, east to Johnson, north to Maxwell, east to river, along river northwest to Van Buren. (West side.)
 18. Peoria county.
 19. From South Cicero avenue east on 39th to Illinois and Michigan canal, northeast along canal to Central Park avenue, north to 24th, east to Clifton Park avenue, north to C., B. & Q. tracks, northeast along tracks to California avenue, north to 12th, east to Western avenue, north to Washington boulevard, west to Homan avenue, north to Kedzie, west to South Cicero avenue, south to 12th, west to Austin avenue; also the city of Berwyn and the town of Riverside. (West side.)
 20. Kankakee, Grundy and Iroquois counties.
 21. From Ashland avenue west on Chicago avenue to Park avenue, south to Lake, west to Austin avenue, south to 12th, east to South Kenton avenue, north to Kinzie, east to Homan, south to Washington boulevard, east to Ashland avenue, north to Kinzie, east to Green, north to Milwaukee avenue, northwest to Cornell, west to Holt, north to Augusta, west to Ashland avenue, south to Chicago avenue. (West side.)
 22. Vermillion and Edgar counties.
 23. From Austin avenue east on Lake to Park avenue, north to Chicago avenue, east to Ashland avenue, north to North avenue, west to Harlem avenue; and village of Oak Park. (West side.)
 24. Champaign, Piatt and Moultrie counties.
 25. From Western avenue west on Devon avenue, Fulton and Hamilton to city limits, south on Winter to Everill avenue, east to 73d avenue, south to Bryn Mawr avenue, east to North Maynard avenue, south to Irving Park boulevard, west to Harlem avenue, south to North avenue, east to Robey, north to Fullerton avenue, east to river, northwest along river to Belmont avenue, east to Western avenue, north to Devon avenue. (Northwest side.)
 26. Ford and McLean counties.
 27. From the river west on Fullerton avenue to Robey, south to North avenue, east to Ashland avenue, south to Augusta, east to Holt, south to Cornell, east to Milwaukee avenue, southeast to Green, south to Kinzie, west to Ashland avenue, south to Madison, east to South Racine avenue, south to Van Buren, east to river and northwest along river to Fullerton avenue. (West side.)
 28. Logan, DeWitt and Macon counties.
 29. From Lake Michigan west on Schiller to State, south to Goethe, west to Sedgwick, north to Sigel, west to Cleveland avenue, south to Clybourn avenue, northwest to Larrabee, south to Division, west to Halsted, south to river, thence along river southeast and east to Lake Michigan, north along lake shore to Schiller. (North side.)
 30. Tazewell, Mason, Menard, Cass, Brown and Schuyler counties.
 31. From Lake Michigan west on Devon avenue to Clark street, south and southeast to Irving Park boulevard, east along river to Halsted, north to Division, east to Halsted, south to North avenue, west to river, southeast along river to Halsted, north to Division, east to Larrabee, north to Clybourn avenue, southeast to Cleveland, north to Sigel, east to Sedgwick, south to Goethe, east to State, north to Schiller, east to Lake Michigan, north and northwest along lake shore to Devon avenue. (North side.)
 32. McDonough, Hancock and Warren counties.
 33. Rock Island, Mercer and Henderson counties.
 34. Douglas, Coles and Clark counties.
 35. Whiteside, Lee and DeKalb counties.
 36. Scott, Calhoun, Pike and Adams counties.
 37. Henry, Bureau and Stark counties.
 38. Greene, Montgomery, Jersey and Macoupin counties.
 39. LaSalle county.
 40. Christian, Shelby, Fayette and Cumberland counties.
 41. DuPage and Will counties.
 42. Clinton, Marion, Clay and Effingham counties.
 43. Knox and Fulton counties.
 44. Washington, Randolph, Perry, Monroe and Jackson counties.
 45. Morgan and Sangamon counties.
 46. Jefferson, Wayne, Richland and Jasper counties.
 47. Madison and Bond counties.
 48. Hardin, Gallatin, White, Edwards, Wabash, Lawrence and Crawford counties.
 49. St. Clair county.
 50. Franklin, Williamson, Union, Alexander and Pulaski counties.
 51. Hamilton, Saline, Pope, Johnson and Massac counties.

ILLINOIS CONGRESSIONAL DISTRICTS

1. City of Chicago (part).
2. City of Chicago (part).
3. City of Chicago (part) and towns of Lemont, Palos, Worth, Orland, Bremen, Thornton, Rich, Bloom and Calumet, in Cook county.
4. City of Chicago (part).
5. City of Chicago (part).
6. City of Chicago (part) and towns of Proviso, Cicero, Oak Park, Berwyn, Riverside, Stickney and Lyons, in Cook county.
7. City of Chicago (part) and towns of Hanover, Schaumburg, Elk Grove, Maine, Leyden, Barrington, Palatine, Wheeling and Norwood Park, in Cook county.

8. City of Chicago (part).
9. City of Chicago (part).
10. City of Chicago (part), Lake county and towns of Evanston, Niles, New Trier and Northfield, in Cook county.
11. Counties of DuPage, Kane, McHenry and Will.
12. Counties of Boone, DeKalb, Grundy, Kendall, LaSalle and Winnebago.
13. Counties of Carroll, Lee, Jo Daviess, Ogle, Stephenson and Whiteside.
14. Counties of Hancock, Henderson, McDonough, Mercer, Rock Island and Warren.
15. Counties of Adams, Fulton, Henry, Knox and Schuyler.
16. Counties of Bureau, Marshall, Peoria, Putnam, Stark and Tazewell.
17. Counties of Ford, Livingston, Logan, McLean and Woodford.
18. Counties of Clark, Cumberland, Edgar, Iroquois, Kankakee and Vermillion.
19. Counties of Champaign, Coles, DeWitt, Douglas, Macon, Moultrie, Shelby and Platt.
20. Counties of Brown, Calhoun, Cass, Greene, Jersey, Mason, Meuar, Morgan, Pike and Scott.
21. Counties of Christian, Macoupin, Montgomery and Sangamon.
22. Counties of Bond, Madison, Monroe, St. Clair and Washington.
23. Counties of Clinton, Crawford, Effingham, Fayette, Jasper, Jefferson, Lawrence, Marion, Richland and Wabash.
24. Counties of Clay, Edwards, Gallatin, Hamilton, Hardin, Johnson, Massac, Pope, Saline, Wayne and White.
25. Counties of Alexander, Franklin, Jackson, Perry, Pulaski, Randolph, Union and Williamson.

THESE ARE THE MEN

"Representing" the looted states, who voted to take \$597,709.50 from the tax payers of their own states and give it to 38 other states and the federal children's bureau under the Sheppard-Towner Maternity Bill.

Republicans in Roman.

Democrats in Italics.

Those marked * served in the 66th Congress.

Those marked † served in a previous Congress.

CALIFORNIA

C. F. Lea*
J. E. Raker*
H. E. Barbour*
A. M. Free
W. F. Lineberger
H. Z. Osborne*
P. D. Swing

ILLINOIS

E. W. Sproul
J. W. Rainey*
F. A. Britten*
C. R. Chindblom*
C. E. Fuller*
W. J. Graham*
E. J. King*
C. Ireland*
F. H. Funk
J. G. Cannon*
G. L. Shaw
W. A. Rodenberg*
E. B. Brooks*
T. S. Williams*
E. E. Denison*

MASSACHUSETTS

A. T. Treadway*
S. E. Winslow*
R. S. Maloney
F. W. Dallinger*
G. H. Tinkham
L. A. Frothingham
W. S. Greene*

MICHIGAN

G. P. Codd
E. C. Michener*
J. M. C. Smith*
J. C. Ketcham
C. E. Mapes*
P. H. Kelley*
L. C. Cramton*
J. C. McLaughlin*

R. O. Woodruff†
F. D. Scott*
W. F. James*
V. M. Brennan

NEW JERSEY

I. Bacharach*
T. F. Appleby
E. C. Hutchinson*
E. R. Ackerman*
R. Perkins
A. H. Radcliffe*
H. W. Taylor
F. R. Lehlbach

NEW YORK

F. C. Hicks*
W. I. Lee
C. G. Bond
M. London†
W. M. Chandler†
I. Siegel*
M. C. Ansonge
B. L. Fairchild†
J. W. Husted*

H. Fish, Jr.*
C. B. Ward*
J. S. Parker
F. Crowther*
W. W. Magee*
A. B. Houghton*
T. B. Dunn*
A. D. Sanders*
J. M. Mead*

NORTH CAROLINA

S. M. Brinson*
E. W. Pou*
C. M. Stedman*
W. C. Hammer
R. L. Doughton*
A. L. Bulwinkle
Z. Weaver*

OHIO

N. Longworth*
A. E. B. Stephens*
J. L. Cahle
C. J. Thompson*
C. C. Kearns*
S. M. Fess*
R. C. Cole*
W. W. Chambers
I. M. Foster*
E. D. Ricketts*

—Woman Patriot.

J. C. Speaks
J. T. Begg*
C. E. Moore*
W. M. Morgan
F. Murphy*
J. G. Cooper*
M. G. Norton
T. E. Burton†

PENNSYLVANIA

H. C. Ransley*
G. P. Darrow*
T. S. Butler*
H. W. Watson*
W. W. Griest*
C. R. Connell
F. B. Gerner
E. R. Kiess*
I. O. Kline
J. M. Rose
E. J. Jones*
A. M. Wyant
H. W. Temple*
M. W. Shreve*
W. H. Kirkpatrick
N. L. Strong*
H. J. Bixler
S. G. Porter*
M. C. Kelly*
J. M. Morin*

HOW TO KILL YOUR MEDICAL SOCIETY

1. Don't come to the meetings.
2. But if you do come, come late.
3. If you do attend a meeting, find fault with the work of the officers and other members.
4. Never accept an office, as it is easier to criticize than to do things.
5. Nevertheless, get sore if you are not appointed on a committee; but if you are, do not attend committee meetings.
6. If asked by the chairman to give your opinion regarding some important matter, tell him you have nothing to say. After the meeting tell everyone how things ought to be done.
7. Do nothing more than is absolutely necessary, but when other members roll up their sleeves and willingly and unselfishly use their ability to help matters along, howl that the organization is run by a clique.
8. Hold back your dues as long as possible; or don't pay at all.
9. Don't bother about getting new members. Let George do it.

Correspondence

INCREASING TENDENCY FOR NON-MEDICAL PERSONS TO USURP THE FUNCTIONS OF MEDICAL MEN.

Chicago, Dec. 9, 1921.

To the Editor: The enclosed letter is but another evidence of the increasing tendency for non-medical persons to usurp the functions of medical men. Along with this pernicious tendency is the inclination of often poorly qualified

medical men associated with health departments and industrial concerns to hastily and arbitrarily command persons to have this or that operation, or treatment, often without due investigation or consideration of the indications or contraindications.

I have no personal grievance, but am convinced that this is properly a medical matter. We are all convinced that the medical profession, as such, is best qualified to decide in these matters, and if the confidence of the people is to be retained, the medical profession cannot shirk its duty in these matters. We cannot maintain our prestige and dignity without doing our duty, and it must be confessed that we are constantly realizing this when it is all but too late.

This subject has often been touched upon, but only touched, and it is a good subject to keep active until something adequate is done.

If work is being done along this line by any person or committee and this letter will be of use, it may be used.

Yours truly,

3860 Lexington St.

H. L. BAKER.

The following is the letter alluded to by Dr. Baker:

Dec. 2, 1921.

Mrs. _____,

Hinsdale, Illinois.

My dear Mrs. _____:

As you will see from her report, _____ is doing poor work, probably due to her physical condition. You told me your physician was giving her thyroid treatment and the school doctor advised it be kept up and spoke of pituitary extract to make her grow. I understand from _____ that she is not having the treatment now, it may be too far to go in town, but there are good doctors in Hinsdale. Treatment now will make a great deal of difference in _____ future health and progress in school.

I had hoped from what you told me last year that you would have _____ tonsils and adenoids removed in the summer.

The school doctor this fall said the operation was very necessary and although he is doing fair school work, he is a year behind his grade and is liable to lose more time from sore throats.

The school doctor also said _____ had a slight goitre which might not develop if she had her tonsils and adenoids removed.

Sometime when you are in town, can't you

come in to see me? I have intended to call on you but it is difficult for me to get into the country this time of year.

Sincerely,

ANNE AMBRIDGE,

School Nurse.

Society Proceedings

CHAMPAIGN COUNTY

At the annual meeting of the Champaign County Medical Society, the following officers were elected for 1922: President, D. E. Yantis, Urbana; vice-president, J. T. Hilgenberg, Pesotus; secretary-treasurer, L. S. Gregory, Urbana; medical defense, T. J. McKinney, Champaign; delegate to convention, J. C. Dallenbach, Champaign.

Dr. Edward Oschner of Chicago read a paper on "A serious menace and a way out."

Lewis T. Gregory, M. D.

CHRISTIAN COUNTY

The Christian County Medical Society met in regular session at the Antlers Hotel, Taylorville, Jan. 20, at 7 o'clock, where they enjoyed a dinner and then repaired to the office of Dr. T. A. Lawler, adjoining the hotel where the regular business of the evening was taken up and a very interesting program enjoyed by all.

The newly elected officers are: President, W. H. Frazer, Taylorville; vice president, C. M. Seaton, Morrisonville; secretary-treasurer, D. D. Barr, Taylorville; legal committee, J. N. Nelms, Taylorville; delegate, C. L. Armstrong, Taylorville; alternate, T. A. Lawler, Taylorville; public health committee, J. H. Miller, Pana, and W. H. Mercer, Taylorville; censors, T. A. Lawler, W. H. Mercer and J. N. Nelms, all of Taylorville. Dr. F. J. Port of Kincaid, was elected to membership.

D. D. Barr, Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular Meeting, Jan. 4, 1922

An illustrated lecture on the Sanitary District Canal and the Illinois River. (Moving Pictures.) James H. Lawley, Trustee of the Sanitary District.

Discussion: Dr. F. W. Mohlman, Chief Chemist, Sanitary District; H. P. Ramey, Sr., Assistant Engineer.

Joint Meeting Chicago Medical Society and the War Veteran's Bureau, Jan. 12 and 14.

The Medical Aspects of Gas. (Moving Pictures). Col. H. L. Gilchrist, Medical Director of the Chemical Warfare Service.

General Discussion.

Regular Meeting, Jan. 18, 1922

1. Appendicitis and Its Associated Pathology, Frank D. Moore.

Discussion: A. J. Ochsner, Theo. Ticken.

2. The Bad Risk Patient with Special Reference to Abdominal and Goiter Operations, George W. Crile, Cleveland, Ohio.

Discussion: S. R. Slaymaker, Frederic Besley.

Regular Meeting, Jan. 25, 1922.

1. Surgical Experience with Tuberculosis Tenosynovitis of the Hand, Allen B. Kanavel.

Discussion: B. H. Moore.

2. Dislocations and Fractures—Dislocations Occurring at the Acromio-Clavicular Articulation, R. W. McNealy.

Discussion: Kellogg Speed, Geo. G. Davis.

ST. CLAIR COUNTY

Meeting called to order by President Cables at 8:30 p. m., Dec. 8, 1921.

Proposed Amendments

The following amendments to By-laws were proposed:

Article II.

Section 1. The annual dues of this society shall be seven dollars, payable in advance, during the first quarter, or at or before the April meeting.

Article V.

Section 3. The secretary shall collect the dues of members, and all other moneys due the society, paying the same over to the treasurer and taking his receipts therefor.

Section 4. The treasurer shall receive all moneys from the hands of the secretary, keep a true account of the same, paying them out only on orders signed by the president and secretary. He shall make full report at each annual meeting.

On motion of Dr. Lillie, seconded by Dr. Foulon, their acceptance was carried.

The following amendment to the Constitution was read to the meeting, to be voted upon in January:

Article IV. Officers

Section 2. The officers shall be elected annually at the regular meeting in December, and shall be induced into office at the regular meeting in January, and shall serve for one year, or until their successors are elected and installed.

The transfer of Dr. Vincent A. Simkus from the Chicago Medical Society to the St. Clair County Medical Society was presented. On motion of Dr. Lillie, seconded by Dr. Foulon, the transfer was accepted.

Applications for membership were offered by Dr. James E. Bellinger, Dr. M. Earl Brennan and Dr. Louis E. Wedel.

Dr. Walter Wilhelmj instructed the chair it was necessary for the Board of Censors to hold all applications for membership 30 days after their presentation before submitting them to a vote of the Society. The applications of Doctors Bellinger, Brennan and Wedel were accordingly turned over to the Board of Censors for their consideration.

Dr. E. E. Poos of Belleville read a very instructive and interesting paper on "Visceroptosis." A

general discussion of the paper followed, Dr. Poos closing.

A general discussion regarding the stand the Society should take towards the examining of school children by nurses and other "public welfare" work took up the rest of the evening, without coming to any definite conclusion.

Meeting adjourned 11:00 p. m.

EUGENE MCQUILLAN,
Secretary.

WILLIAMSON COUNTY

The Williamson County Medical Society met in Library in Marion, Tuesday, January 10, at 1:30 p. m.

Program

1. "Eye Injuries and Their Treatment"..... Dr. O. F. Shipmen, Herrin
2. New and Unfinished Business.
3. Clinics and Reporting Cases.

At the December meeting the following officers were elected for the year 1922: C. I. Pease, president; J. T. Black, vice-president; L. B. Casey, second vice-president; J. G. Parmley, secretary-treasurer.

The dues for 1922 are \$6.50.

Local Dues	\$1.50
State Society Dues	3.00
Medical Defense Fund Dues.....	2.00

Total	\$6.50
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C. I. PEASE,
President.
J. G. PARMLEY,
Secretary.

Marriages

Charles Kahn to Miss Gertrude Moak, both of Chicago, December 29.

Albert John Weirick, Marseilles, Ill., to Miss Maude Beale of Crown Point, Ind., January 12.

Personals

Dr. S. M. Morwitz, of Chicago, has returned from a postgraduate course in otolaryngology taken in Vienna.

Dr. O. W. McMichael of Chicago, conducted a clinic for the Ogle County Tuberculosis association at Oregon, January 10.

Dr. George Thomas Palmer, president of the Illinois Tuberculosis association, attended the opening of the new Champaign county tuberculosis sanitarium and assisted in the installation of officers. Dr. D. B. Johnson of Chicago has been appointed medical director.

Dr. Anna C. Johnson, Chicago Municipal Tuberculosis Service, has been appointed medical director of the Champaign County Tuberculosis Sanatorium.

Dr. Harry W. Dale, Chicago Heights, is recovering from injuries received when he was recently attacked by robbers when, in response to a telephone call, he attempted to make a visit at a house which proved to be vacant.

News Notes

—Annual meeting of the Peoria City Medical Society was held December 20, and the following officers were elected for 1922: president, Chas. G. Farnum; first vice-president, W. B. Eicher; second vice-president, O. W. Simpson; secretary-treasurer, S. H. Easton; delegate to state society, R. L. Green; alternate delegate to state society, W. W. Wyatt; censor, A. A. Knapp.

—At a meeting of physicians of Ford County held at Paxton, January 10, the Ford County Medical Society was organized as a branch of the Illinois State Medical Society. The following officers were elected: president, Dr. Samuel M. Wylie, Paxton; vice-president, Dr. Robert N. Lane, Gibson City, and secretary-treasurer, Dr. Walter C. Cottingham, Paxton.

—The Hancock County Medical Society by unanimous vote agreed to use its influence to prevent the reelection to the United States Congress of its present representative of that district, because of his activities on the Sheppard-Towner bill. The county society also took action disapproving laws that would result in meddlesome interference by federal and state authorities in the private practice of medicine.

—Announcement has been made of the completion of isolation quarters for patients suffering with communicable diseases at St. Alban's School, Sycamore. The directors of the school recently proposed to advance a considerable sum toward the erection of a contagious disease hospital for De Kalb County provided the county advisers would appropriate sufficient funds to pay the additional costs. While this proposition is under consideration it seemed advisable to provide the local isolation quarters referred to above although the school is at present free from contagious diseases.

—Madison County Medical Society elected the following officers, December 2, 1921: Dr. A. F. Kaeser, Highland, president; Dr. H. C. H. Schroeder, Granite City, vice-president; Dr. E. W. Fiegenbaum, Edwardsville, secretary; Dr. J. A. Hirsch, Edwardsville, treasurer; Dr. J. B.

Hastings, Alton, medico-legal member; Dr. E. C. Ferguson, Edwardsville, board of censors.

—The regular January meeting of the Iowa and Illinois Central District Medical Association was held Thursday evening, January 19, at the Black Hawk Hotel, Davenport. Dr. P. A. Bendixen, of Davenport, read a paper on "Fracture of the Meta-carpal Bones," illustrated with lantern slides. Dr. Joseph L. Miller, of Chicago, paper on "The Recognition and Treatment of Mild Hyperthyroidism."

—The American Medical Association has purchased 40x100 feet on Grand Avenue, east of the present building and it is reported will build a six story addition in the spring.

—House and room congestion is generally supposed to be the peculiar misfortune of large cities but it is reported that a recent survey in Lincoln disclosed one small cottage that housed six families numbering twenty persons, one cottage with thirty-two inhabitants, and one family living in a basement "furnace room."

—At the Annual Meeting of the Chicago Polish Medical Society the following officers were elected for the year A. D. 1922: Dr. Wladyslaw A. Kuflewski, president; Dr. Stefan R. Pietrowicz, vice-president; Dr. Leon Grotowski, secretary and treasurer; Dr. M. J. Kostrzewski, Editor.

—The damage caused by a fire, January 9, believed to have been started by crossed electric wires, to instruments and specimens in Loyola University School of Medicine, is estimated at \$50,000.

—By displaying on the radiator of their cars a sign which may be obtained at the city clerk's office, physicians may obtain the right of way, wherever possible, at bridges, processions or public gatherings.

—Three cases of trichinosis and one case of leprosy were reported to the state department of public health during the first weeks of January. The trichinosis cases occurred in DuPage, Hancock and Livingston counties, while the case of leprosy occurred in Rockford.

—Dr. William Barnes, Decatur, plans to sell his private collection of butterflies and moths, said to be the largest and most valuable private collection in the United States, to the Smithsonian Institute, and to give the money to the Macon County Hospital. The collection con-

tains more than 10,000 varieties of *Lepidoptera*.

—Arrangements have been made for a venereal disease institute to be held in Chicago, March 13-18, under the auspices of the U. S. Public Health Service and directed by the Illinois State Department of Public Health. Physicians, social workers and other interested persons are invited to attend. Programs and registration cards may be obtained from the Illinois State Department of Health, Springfield.

—The typhus fever epidemic in Moscow has already assumed serious proportions. The disease is being spread by refugees from the famine area and an epidemic of a dangerous character during the coming months is feared. Upward of eight hundred new cases were reported to the hospitals during the week ending December 17th. Shortage of doctors, nurses, medical supplies, and hospital equipment aggravates the evils of overcrowding, undernourishment, dirt and lack of washing and sanitation facilities. Every day the situation is growing worse, though every effort is being made by health authorities to check the spread of the disease. Dr. Reginald Farrar, representative of the Epidemics Commission of the League of Nations, died in Moscow on December 29th from typhus contracted in the famine area. Other cases have occurred among the relief workers, with several deaths.

Dr. John Dill Robertson, Commissioner of Health of Chicago, resigned and Dr. Herman N. Bundesen was installed as his successor, February 1. The new Commissioner has been on the staff of the department since 1914, recently as Epidemiologist. He has been active in supervision of water purification and typhoid control.

—Why not inoculate dogs to prevent rabies? Japan inoculates dogs instead of people, to prevent rabies. The report says that in 31,000 dogs so treated not one case of rabies developed. This suggestion from Japan is worthy of consideration.

—The Executive Committee of the Milwaukee County Medical Society, courtesy of Drs. Edwin Henes, Jr., E. A. Fletscher, W. T. McNaughton, J. Gurney Taylor, J. J. Seelman and J. L. Yates report a donation of \$317.25 from the Milwaukee County body to the Foundation Fund of the Tri-State District Medical Society of Illinois, Iowa and Wisconsin. The amount was voluntarily contributed to the Endowment fund for

the "support of the splendid purpose for which the Tri-State District Medical Association was organized." The Milwaukee County Medical Society is the first official body in the three states to contribute to the fund although a large number of Wisconsin physicians are individual subscribers.

Deaths

GEORGE NOBLE KREIDER, Springfield, Ill.; Medical Department of the University of the City of New York, 1880; former surgeon of St. John's Hospital; died January 4, aged 65. Dr. Kreider was born in Lancaster, Ohio, October 10, 1856, and received his A.B. and A.M. from Ohio Wesleyan University; was surgeon in charge of the Wabash Hospital; treasurer, 1891-1901, and president, 1901, of the Illinois State Medical Society; one of the founders of the ILLINOIS MEDICAL JOURNAL; member of committee of publication, 1899-1901; editor, 1901-1913; president of the Sangamon County Medical Society, 1899; lieutenant-colonel and assistant surgeon-general of the Illinois National Guard. For several years he served on the Illinois State Board of Health.

MARTIN WRIGHT BACON, Chicago; University of Michigan, Ann Arbor, 1875; one of the founders of the Englewood Hospital, Chicago; died January 14.

WILLIAM ORPHEUS CATTRON, Pekin, Ill.; Hahnemann Medical College and Hospital of Chicago, 1876; member of the Illinois State Medical Society; died, December 8, following an attack of hiccup, aged 69.

SAMUEL HENRY HONN, Metcalf, Ill. (license, Illinois, 1878); also a druggist; died, January 1, after a long illness, aged 68.

GLENN A. HOWARD, Rockford, Ill.; College of Physicians and Surgeons, Chicago, 1902; member of the Illinois State Medical Society; died, December 29, from pleuropneumonia, at St. Anthony's Hospital, Rockford, aged 41.

CHARLES B. JOHNSON, Batavia, Ill.; Rush Medical College, Chicago, 1892; also a druggist; died, December 13, from asthma and lung trouble, aged 54.

EDWARD E. KOLAR, Chicago; Rush Medical College, Chicago, 1893; died, January 8, from tuberculosis, aged 50.

OSCAR G. OLSON, Chicago; Kentucky School of Medicine, Louisville, 1893; died, December 27, from food poisoning, aged 57.

JOSEPH P. OTTO, Chicago; Chicago Medical College (Northwestern University), Chicago, 1873; died, January 4, aged 72.

JOHN W. PORTER, Virginia, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1878; died, Dec. 22, 1921, from cerebral embolism, aged 67.

WALTER WATSON, Mount Vernon, Ill.; Medical College of Ohio, Cincinnati, 1875; former superintendent of the State Hospital for Insane, Jacksonville; died, January 8, at St. Luke's Hospital, St. Louis, aged 70.

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Original Articles

YOUR AMERICAN MEDICAL ASSOCIATION

SYMPOSIUM ON THE A. M. A. AND ITS COMPONENT SOCIETIES BEFORE NORTH SIDE BRANCH OF CHICAGO MEDICAL SOCIETY, FEBRUARY 2, 1922.

Dr. George J. de Schweinitz, President-elect, A. M. A.

Horace M. Brown, President-elect, Tri-State District Medical Association.

A. R. Craig, Secretary, A. M. A.

Charles E. Humiston, President, Illinois State Medical Society.

E. H. Ochsner, A. M. A. Trustees Billings, Williamson, Phillips, Richardson and others.

Dr. George J. de Schweinitz, Philadelphia, President-Elect of the American Medical Association: It is a very fortunate circumstance that I happened to be in Chicago today attending a meeting of the central officers of the American Medical Association. I have, therefore, the very great pleasure of meeting you here this evening. Your president informed me that I might talk on any subject I pleased.

I told a distinguished surgeon in Chicago today that I thought I would speak, but I might perhaps recite the Lord's Prayer. He said it was quite useless as "we all know the Lord's Prayer in Chicago." It was a very nice religious sentiment. There is one sentence that makes it the great prayer of the world. It applies to all walks of life, that is the sentence, "Lead us not into temptation."

I come here as president-elect of this great organization which we know as the American Medical Association. I am glad to be represented in that capacity. I come here because it is a great pleasure, as it always has been to meet the physicians of the city of Chicago. I have never met them except in the most pleasing circumstances and in the most pleasing way. It is very interesting to begin to realize, in anticipation of course, that when the rather large job is mine—as far as I am concerned by far the hardest job ever handed to me and the greatest compliment ever paid to my Section—just what I shall have to do.

They say in Washington a man gets dusted by his job. I have not got the job yet so I am not being dusted by it, but I am certainly being dusted by those who wish to give me advice. I have heard from physicians far and wide as to just what my duty should be. If all the good advice that has been handed to me be followed, then perhaps I shall meet the situation that shall confront me after next May. I assure you that I shall endeavor to accept the honor and so act and bear myself up that you will be able to say that I have been dusted by my job satisfactorily to yourselves.

I have traveled so often from Philadelphia to Chicago in the last few months that I think the men who meet me on the train are beginning to take me for a traveling salesman; in fact, one man said, "What is your line?" I said, "My line is optical works." His line was furs and there the conversation ended. I did not entirely tell him an untruth because I have been trying to learn something of this very important business that shall be handed to me later on. I have been trying to look through spectacles that have fitted men far better than I ever hope to be and trying to get some thought of wisdom from them. I have also looked through some lens in which the different angles of astigmatism might be large. I have looked through some for only a short time and I am quite sure those lens were wrong because the whole picture was distorted. I assure you that I shall try to be fitted with glasses, the angles of which are correct and I hope the vision will not be only what it is today but the vision of the future of this great organization.

This high office to which I have been appointed carries with it not only power but also limitations. No matter what our occupations in life may be or what our relationships to those occupations shall be, we must surely try to have power to fulfill those obligations and also power to recognize our limitations. When there is a recognition of limitations in order to neutralize them, there must be conferences and I shall endeavor to plan our component parts of the organization so that each will act with the other in perfect sympathy. That is much, too much, to hope in any organization. Always there must be criticism and it is right that it should exist. Always there must be differences of opinion and it is right, but let the criticism be constructive, let the men who criticize find out whether their criticism is just. Let them bear in mind the first principles of ethics. It is wrong to attribute evil criticism to your colleagues. Look fairly on the subject before you bring it up for crit-

icism. We must remember, gentlemen, in all great organizations progress is made by evolution, not by turning things upside down, or what we call revolution. That is what the Association for all these years has been trying to do, sometimes not so well but always trying to be better; always trying in its executive power to do those things which make the members of the Association get the best out of the Association. We want to be fair, fair each to the other. If that fairness exists, then it seems to me that this Association, which is this year 75 years old in its organization, will continue to prosper. In a few months from now I shall hold the position to which I have been appointed and I hope that, no matter whether we sometimes may differ, we may come together in all the essential things. I hope that I may feel that I can come to you, gentlemen of the North Side Branch or the entire Society, for conference and consultation and I hope that you will come to me if you care to with your problems, and if I shall not be able myself to answer back, to ask wiser men than myself to clear your problems. Criticise when you like but always stand for something greater than we have been in the past.

YOUR LOCAL SOCIETIES—COUNTY AND STATE

Dr. Horace Manchester Brown, Milwaukee, Wis., President-Elect, Tri-State District Medical Association: You have all heard the feeling and agreeable words of the President-Elect of the American Medical Association and the sentiments he has voiced will meet with an echo in your own hearts. He represents the apex of a great pyramid. The subject that I shall have to talk about may be considered the base of that pyramid.

We are living in strenuous times for the medical profession. We are living in an environment of every conceivable kind of emotionalism; pseudo-medical nonsense of every sort is in the ascendency. These conditions are in some degree the result of the recent little disturbance across the water, but in far greater degree, I believe, the result of a strange and unwarranted suspicion of the medical profession on the part of the public. In how far the medical profession is to blame for this suspicion I am not prepared to state, but speaking for the county medical societies, the societies which are the substructure of the great edifice of the American Medical Association, I can safely say that at the present time the conditions that exist throughout the counties in most of the states of the Union are not entirely satisfactory. What I shall have to say to you must not be put down as being anything that is based upon that absolute authority that a man should be blessed with if he expects to speak reasonably in regard to so large a number of men as that which makes up the county societies, the foundation stones of the American Medical Association. What I have to say will be what I have gathered in the last two years from visits to a large

number of county medical societies where I have made addresses and from talking to the men who are the councilors of the state societies.

The principal note that seems to be sounded throughout the country at the present time among the ordinary, every-day practitioners is one of indifference toward medical organizations and it seems to me if I speak about that, that you should consider what I have to say to be entirely my opinion based, as I hope, upon reasonable basis. There is unrest and dissatisfaction in the county societies with the state societies and in the state societies with the American Medical Association. What are the reasons for this dissatisfaction? As you all know, medicine has been undergoing an evolution in the last ten or fifteen years. The young man coming out of school after spending \$20,000 worth of his life or more in learning the fundamentals of the profession of medicine finds himself at once handicapped when he goes out to apply what he has learned, for the purpose of gaining a livelihood, by his coming in contact with group medicine and clinical groups. Wherever he goes he finds the clinical group which hogs everything in the profession in the way of remuneration. If he expects to do anything at all in his life work he must make friends with the clinical group men and, if possible, become one of a group or establish a group of his own. The clinical groups in their turn have gained possession of the hospitals and the new man coming into the district has no way whatever of getting on the staff of a hospital or of being able to do anything in hospital life except by consent of the clinical group in his locality. The hospitals have changed entirely in their attitude toward the medical man. The cost of hospitalization has become so enormous that it has become entirely prohibitive, and the young man trying to practice medicine, finds that his patients whom he may send to the hospital fall under the influence of the clinical group, and after the patient has paid the hospital bill there is nothing left for *him*; and he is like the man with six children who had but one mackerel for breakfast; after the mackerel was carved there was nothing left but the eye for father. The young man gets the eye and nothing else and you know how nutritious is the eye of a boiled mackerel. Many of the younger men who served during the war have come back to find that in the interim of the three or four years which they gave to their military service, they are unknown or forgotten and naturally their enthusiasm for joining the county medical societies is not very great. Besides that, they have not the money, and they see no immediate way of getting it. That is the condition that one finds throughout the country. Add to that, if you please, a condition that is at the present time so strangely redundant throughout the country. We are at this moment living in the period of control of things by the *epicene*. Some of you know what that is and some of you do not. An *epicene* is a Greek or Latin noun which is sometimes feminine, sometimes masculine, but is never quite either. The period of

domination by the epicene—in other words, the fat-thighed man and the skinny hipped woman—has been the period in the history of every great nation, just preceding the fall of that nation. Their mind is one that is given to strange fanaticism, much emotionalism and agitation. The epicene wishes to uplift everything, but lift up nothing in reality but his voice, and his or hers is the voice that is heard wherever you go in the United States today. We are dominated today by the long-haired man and the short-haired woman. Any man who is not bald can let his hair grow and any woman who wishes can cut hers off. The fat-thighed man and the skinny hipped woman are but anatomical outward and visible signs of an inward physical distortion of their anatomical and endocrinic processes. These are the conditions at the present time. If there is any one here who can imagine anything that has not been thought of to reform mankind and particularly the medical profession, I would like to know it. Many of these reforms are brought about by the ladies of the "Dorcas Society of the Second Baptist Church" or some other like thing; many of them are brought about by people hopelessly ignorant of the history of mankind or the history of the medical profession. If we were to look into the book known as "The Institutes of Menu" (?) written by Brigu some nine hundred years before the beginning of the Christian era, we will find that at that time the epicene was putting forth new methods of reforming mankind which were probably then older than the pyramids.

The medical man is passing through this horrible era of emotionalism. Now all of you will agree with me that at no time in the history of American medicine were there so many young men, so many finely qualified young men offering their services to the public as there are today. Every way they turn they are met by the epicene advising them of the "beauty of service"—yes, the beauty of service with the accent on the service and damned little beauty coming from it. The time has long gone by, gentlemen, when the medical profession formed a part of the priesthood, a priesthood that devoted its life to self-sacrifice without any remuneration except that which might come after death. A perfectly safe bet. The young men who have spent their lives and their money for the purpose of becoming qualified medical men feel that they are entitled to earn a living which will support them and enable them to bring up and educate a family without interference by the epicenic group, by every conceivable kind of man walking on legs, and it is these young men who see no help for this condition in the county medical society, who are indifferent as to joining its membership.

It is the county medical society that lies underneath the state medical society—the state medical society whose delegates make up the governing body of the American Medical Association. Let us leave the problem of unrest and dissatisfaction that exists among the rank and file of the profession, the county medical society man, and see what the county

medical man thinks of the State society. There also is a great deal of dissatisfaction. How much of it is warranted I am not prepared to say, but I must feel that in the state societies the councilors of those societies do not look after the interests of the individual practitioner, that there is too much cut and dried politics, lay and clinical group control of state societies, and that there is altogether too much chasing after political prestige, too much effort to secure positions as heads of dispensaries, controlled by, or paid for by state or out of state funds. Furthermore, there is too much sympathy on the part of the state societies with the medical men who by standing in with the proper authorities get good jobs with the health departments, in the department of public health, in the laboratories, in dispensaries and in municipal institutions of different kinds. Surely, the rank and file of the profession in the state societies feel that they pay and try to look pleasant, but that is about all they get out of their state societies. It has been my good fortune in the last two years to have traveled quite extensively in two or three states and to have thought out this question, that is, the attitude of the majority of the members of the county and state societies who are not holding jobs in dispensaries or under city governments, county governments or state governments and drawing salaries for their work. They may be right and they may be wrong. There may be a certain amount of truth in all they say. It is certain that such a feeling exists in the rank and file of the profession.

Now we come up to the next step, that is the American Medical Association. The rank and file of the profession feel that they are neglected by the American Medical Association. They feel that through the delegates that represent them—coming through the state societies—in the House of Delegates of the American Medical Association, they are neglected, that their delegates do not receive or have the opportunity to be of any particular service to their particular state society, the county society or to the individuals making up this association; those groups making up the component parts of the American Medical Association. I have been a member of the House of Delegates of the American Medical Association, I think, seven years—it may be only five—and I have had many times in my state men speak to me, criticising the methods of the House of Delegates of the American Medical Association and demanding to know why through this magnificent organization, the American Medical Association, why, through its officers, the men whom we elect as delegates to the House of Delegates of the American Medical Association, the rank and file of the profession do not in some way receive protection against the epicenes and all their works, against all the activities of the various foundations which are used so extensively against the practice of medicine and which interfere with the just right of the single medical man to earn a living, why he is not in some degree protected against the evils that ex-

ist in all the numerous bills like the Sheppard-Towner bill, and against all these things that are gotten up through the machinations of the Sage Foundation, the Harriman Foundation, supported by the money coming out of the hands of rich widows. They wonder why we have to suffer at the hands of men who are so wild for state medicine, for establishing more dispensaries, for taking care of the so-called worthy poor, for helping everybody but the medical man. Did it ever occur to you that there is only one kind of person to help with safety? I have tried in my life—having been somewhat fortunate—to help a great many people. I find one should never help a man under any circumstances. If a man is a man he does not need any help. If he is not a real man, and you help him, he comes back for more help all the time. (Applause). The only safe thing to do in the way of help is to help women. If you help them and do not make love to them, they are offended; if you help them and do make love to them they pretend to be offended.

No matter which you do, the whole thing ends in a row, and you get rid of the whole responsibility. The great majority of these "helping people," ninety-nine times out of an hundred never help anybody. They make pretenses of helping the starving people of Russia and what are they doing when they help them? They are encouraging Lenine and Trotsky and are helping to disseminate syphilis widespread over the earth. What if twenty million do die of starvation—I use that as an illustration—there are sixteen thousand million people in the world and while I have been talking here at least 20,000 people have died, and what of it? There are more coming along all the time.

These misguided people, loving their emotions more than the facts, believe they are helping the world. They are, on the contrary, actively encouraging the greatest political curse that the world has ever known, and are abetting an existing epidemic of syphilis the like of which has not been seen since the early part of the sixteenth century. These schemes for helping people are absurd from the base up. That is what state medicine will do. That is what everything that helps anybody does. These medical men all over the country are wondering why there is so much of this "helping people." What is this beauty of service and all that kind of thing? The medical man looks—perhaps without reasoning about it from a perfectly logical standpoint—toward the county society to protect him from that kind of thing, and if it cannot do it, to the state society, and if the state society cannot do it, then, he thinks, certainly the great American Medical Association with its most magnificent *Journal*—the best Medical journal that appears anywhere in the world—with its influence ought to be doing something, it ought to be doing something within the limits of reason to help him out of his difficulty.

I come here to put these things before you and to ask a question of Dr. Craig and get his answer. I have wished to be constructive, not fault-finding. Is there any way by which it can be shown that this idea

of the rank and file of the profession is reasonable and if it be reasonable, what is the process through which the American Medical Association can utilize its enormous influence for the benefit of its more humble but component members?

YOUR AMERICAN MEDICAL ASSOCIATION

Dr. Alexander R. Craig, Secretary of the American Medical Association, spoke on this subject. He gave a short historical review of the American Medical Association from its origin in 1846 to the present day. He described the reorganization at St. Paul in 1901. He named the different Councils and briefly described the functions of each. He discussed the House of Delegates and the work of the Board of Trustees. In closing he showed lantern slides of the Association Building and of the various activities going on therein, the making of the directory, the card index system of the doctors throughout the country, the card index system of quacks and cults and the newspaper reports on them. He showed how the *Journal* was printed.

DISCUSSION OF PAPERS OF DRS. BROWN AND CRAIG

Dr. Charles E. Humiston, President, Illinois State Medical Society: I feel greatly honored to be permitted to speak before the North Side Branch for the third time within the year.

I wish to voice my appreciation and approval of the lofty ideals and high purposes which have been set before us this evening by the President-elect of the American Medical Association, Dr. deSchweinitz. I subscribe to the sentiments which he so ably expresses, and I hasten to add my endorsement to his quotation from the Lord's Prayer, "Lead us not into temptation." However, I would continue and add, "*But deliver us from evil.*" I would say further that the medical profession must not confuse its prayer and wander off toward a complacent, insecure repose, with, "*Now I lay me down to sleep.*"

The times demand constructive activity fully as urgently as at any time in the history of the American Medical Association. I do not distinguish between the County and State Societies, nor yet between State Medical Societies and the American Medical Association. I think of the organized medical profession as a whole. The American Medical Association is but the collective name of all the county and state medical societies. Its problems and their problems are identical.

In the lines of Medical education, medical organization, and publication of scientific periodicals, the American Medical Association has no rival. The greatest credit is due the master minds who have brought this organization to its present eminent position.

Times are changing, however, and new problems must be met. The widespread dissatisfaction which Dr. Brown spoke of, I have observed. Of course it is not limited to the medical profession. Dissatisfaction and emotional disturbances exist throughout the

country and throughout the world. *But there are ills which the medical profession suffers now more acutely than ever before, and many of these ills, I believe, can be remedied by active constructive effort on the part of the organized medical profession.* I am not at all in sympathy with anything that looks like revolution or tearing down the splendid organization we have, nor do I wish to make it necessary that some other organization spring up to meet conditions that are plainly medical problems.

The most important recent medical discovery is the rediscovery of the bedside doctor, the family physician, the warp and the woof of the medical profession. One of the greatest and most urgent questions before the medical profession today is how to keep the practice of medicine in the hands of the family physicians.

The Medical profession and the public are not in sympathy with each other. The public is becoming more and more antagonistic, and this hostile, or to say the least, indifferent, attitude is finding expression in vicious medical laws. If the medical profession had been as active in educating the public, as I think it should be, we would not have so many states, through exemptions in their medical laws, giving legal sanction to practices which should find mention only in the penal code. As an example, but not as an exception, consider the exemptions found in the medical practice act of Connecticut.

1. Proprietary remedies sold under trade-mark.
2. Chiropodists.
3. Clairvoyants.
4. Persons practicing:
 - (a) Massage,
 - (b) Swedish movement cure,
 - (c) Sun cure,
 - (d) Mind cure,
 - (e) Magnetic healing,
 - (f) Christian Science,
 - (g) Persons who do not use or prescribe drugs, poisons, medicines, chemicals or nostrums.

Get busy, your fortune-tellers!

Come on, Lydia Pinkham and Peruna!

Welcome, massage and Swedish movement cure, singly or combined.

"Mind," "magnetism" and "Christian Science," help yourselves.

And for fear some fakir may be overlooked, a blanket clause for the unborn crop.

I believe it is within the power of the medical profession to do away with much of this sort of trouble. I believe there is a way of correcting or preventing this sort of legislation. An educated and informed public will not tolerate the systematic plundering of the sick.

The American Medical Association has been instrumental in placing medical education on a high plane; indeed, I am convinced that, for the present at least, educational requirements and prerequisites have gone quite far enough. Let us give attention to the

conditions which surround the practice of medicine by the family physicians in our Society.

The Illinois State Medical Society having a membership of one-eleventh of that of the American Medical Association, is actively engaged in combating vicious medical legislation. It defeated more than forty bills during the last session of the legislature at Springfield. Not one of the opposed bills became a law.

I am not in favor of "pussy-foot" methods. Our fight is the public's fight, and publicity is our best weapon.

I believe that the American Medical Association should be more active in Congress. It should demand the correction of the injustices and inequalities of the Harrison anti-narcotic law. It should openly antagonize Federal interference with the practice of medicine. It should say to Congress, "Keep the blighting hand of political expediency away from health legislative matters—and do this in the name of humanity."

Dr. Frank Billings: Much of the unrest in the medical profession of today and much of the criticism of the American Medical Association is not new. I have been in some way related to the American Medical Association for thirty-nine years. Until the reorganization of the Association in 1901 I could hardly be called a member because, you know, in the earlier days the membership was counted by delegates rather than by those who attended the meetings and until 1901 I had not served as a delegate.

My earliest impressions of the American Medical Association were associated with one of the biggest quarrels of the medical profession that has ever occurred in this country. It expressed itself not only in dispute but in actual physical combat. At the meeting of the A. M. A. in New Orleans in 1883 a quarrel occurred in the general meeting which resulted in fist combat. My namesake, John S. Billings, and William Pepper came to actual blows. That quarrel did not settle at once. It resulted in the secession of the Society of the State of New York, which did not again come into the Association until 1903, 20 years after.

Dr. Craig has told you something about this organization which began in 1901. It has become a thoroughly democratic organization. Any organization based on democracy is bound to have many faults. Our country would fail as a democracy if it were governed purely on lines of democracy. A republic is a better form of government. Our organization as a democracy is a failure in some respects. The county society is the portal of entry and if in that portal of entry due caution were exercised we would not have in the organization as we have in every state men who are not fit to be members of the organization. You know there are quacks in the Association. They are allowed to vote for delegates in the state association. That should not be. That is the weakness in the democracy of it. In this organization with constituent associations we have defects in the Council. I venture to say that there is not one state in this

Union in which councilors of the state did their full duty. They do not exercise the function they should. They do not take the interest in their component society and in the large association for the professional advancement of the members. In a democracy every member has the right of franchise unless he is cheated out of it, and in the right of franchise he has the choice of whom should be a delegate to the state society and in the House of Delegates of the American Medical Association and, consequently, has a choice in the election of all officers of the Association except the manager and the editor of the *Journal*.

Now a member of the Association, as Dr. Craig has said, is in good standing with the county society and with the state society if he pays his dues. Not one cent of that money goes to the Association. A fellow of the Association contributes no other dues and gets a subscription to the *Journal*, the one financial earning power of the Association. This A. M. A. earns a lot of money, but it earns it through its printing press, through the journals which it publishes and distributes to not only members of the Association but others who desire to subscribe.

As Dr. Craig has pointed out, the power of the Association in the House of Delegates is very restricted. They are the only ones who have a right to formulate policies. The Board of Trustees, which is responsible for the conduct of the business of the Association and for the handling of its funds, has no right to incorporate policies. The Board of Trustees is simply a board of directors and has jurisdiction over the property and *appointment of the manager and editor and through him the personnel, excepting that of the secretary, who is elected by the House of Delegates. They are responsible for the conduct of the Journal under the management of the Editor, in the selection or rejection of articles presented to the Journal for publication*, with this exception, that all articles read before the Sections and approved by the officers are published by the *Journal*. The Board of Trustees feel they have a right to put up to the House of Delegates suggestions on policies, so that it has in mind how to benefit the member. While the Association should as far as it may attempt to help that member down yonder, it is difficult to do so, excepting to suggest some program that may be followed and perhaps to help finance it if the Association has the money to do it. The actual work of professional help or salary appointments of that member of the Association lies with his associations in his own localities.

We feel as Board of Trustees that we should present to the House certain propositions that may be considered as policies. Let me say to you that there is not a member of this Board who does not feel that the family physician is the most important member of the medical profession. We believe it is the duty of the organized profession to see that he is put in the right place. To do that we have got to have some constructive program that is accepted by the House of Delegates. Will some of you who may be dele-

gates at the next meeting present some plan that will be helpful? There is no individual so qualified by education or experience who does not make mistakes. He only is a knave or a fool who says he never has made a mistake. I do not believe that there is such a man as that in the Board of Trustees. We are willing to be taught. We are willing to be shown. We are willing to try to show others.

Two weeks ago I was requested as a trustee to go to Kentucky. Some of the questions brought up by Dr. Humiston were before their House of Delegates. It was the opinion of some of the medical men of Kentucky that we should lower the standard of medical education and let more men through. It was found there just as it is in Illinois or in Michigan or in many other states of the Union that the doctors crowded into the city because of poor roads, poor schools, poor social facilities and poor facilities for the practice of medicine. Those were the main reasons for leaving. It is my opinion, members of the North Side Branch, that the main thing this profession has got to do is to take the leadership and show the federal, the state, and the county governments that they should improve conditions for the members of the medical profession so that they can stay in these communities and do their work.

Dr. Humison spoke of the attack on the cults and that we should fight this evil legislation. First of all, we will say that those things should be done. All of us agree to that. In my student days homeopathy was hated by the regular medical profession and was persecuted with a venom that is indescribable. Now we have the osteopath, the chiropractic, the Christian Scientist and all the other cults coming up to fight the regular medical profession. You will find that almost all laymen cannot conceive that the members of the medical profession will fight unselfishly for the public; they will always interpret it that they are fighting for themselves; that we are selfish and that we do not want these competitors. That is false, but how are you going to appeal to the public? That is the way they keep coming back all the time. We believe there is a principle involved and that we must find a means of getting the public to cooperate with the medical profession. As a good example, it was done in California last year; not only the profession but the lay people fought the anti-vaccination bill to a standstill. The California profession assumed the leadership and led the public in the right way. That is the only way in which we can fight the cults—to lead the public into it and let them assume the leadership or let them think they have it. That is only a suggestion. It will perhaps need a different organization than they have had in California. It is a worthy consideration.

I have only a word more to say, that is, to plead with you as part of the Chicago Medical Society to offer constructive criticism, when you have any to make, of the American Medical Association and of the work which is done. The Council on Medical Education and Hospitals is a creature of the House of Delegates. The Board of Trustees has not power over

it. I want to call your attention to the fact that there is not a member of this Board of Trustees who for a moment believes in or will countenance state medicine, no matter what definition you will give it. Please remember that we are fellow members of the American Medical Association and it should be our endeavor to get still further benefits from it and to still further improve medical practice. There are many conditions that must be overcome. Dr. Brown spoke of group medicine, pay clinics. In one of the November issues of the *Journal* is an article which expresses the opinion of this Board. I know every one will subscribe to the opinion expressed in that article. If you have not read it, you will read it and subscribe to it.

Dr. William T. Williamson, Portland, Ore.: I feel that the hospitality that has been extended to us officers is a very kindly one and I am sure we appreciate it.

Dr. Brown presented one side of a very great question splendidly. A man to effect a reform must discover first the faults and must know then how to present these faults in such a way that they will be recognized and will not lack in force from his manner of presenting them. He has done that very successfully. *I think we all agree in what he had to say.* It would be idle, it would be foolish, for any man to say that the county society, the state society or the American Medical Association had done their full duty and had been following the best methods to obtain results. If we have, as the doctor said, this great basis structure, the members of the county medical society, and they are indifferent, if in addition to that indifference there is hostility, and if in addition they are victims of the times, then they are in a state of dissatisfaction, they are hypercritical. But it is not the doctor, it is no particular man, woman or child, it is the whole civilized world. *What does the professor in college do, the man who a few years ago we looked upon as a steady anchor, the man who would not be influenced by any force? Now he is the greatest disorganizer of society, the most unstable of men. He will do anything for the purpose of getting into the limelight. When college professors will do that, what can you expect of these poor, ordinary, every-day physicians? They are dissatisfied with the county society and in turn are dissatisfied with the state society.* It was stated tonight that the Council did not attend to the needs of the country doctor. A doctor goes into a group, works hard and the result is not satisfactory, and the Association is said to be lacking. Now, then, that goes on and we come to the American Medical Association. Its growth and development has been pointed out and it will be observed that it is a creature of the development forced upon us by the situation. It grew like the city of London, first by an addition here and then one there, each independent of the other, but called by one name. That is the way with the American Medical Association. It is an interarticulate combination. While the skeleton framework continues, it has been kept together and it has

grown, it has upheld the science of medicine in a masterly way, it has excited the admiration of all civilized nations. It has done that because there have been a few at the helm who have steadfastly followed the advances of science. They persevered and in season and out of season kept on toward that one goal—scientific achievement.

The medical schools have developed, the teachings of scientific medicine have advanced. It is in the atmosphere. In the last few years, in spite of the unrest and emotionalism medicine in the scientific aspect has gone steadily on and is still going on and we trust it will continue to go on.

I think the American Medical Association has failed seriously to do certain things that should have been attempted and it has done that because it is not well organized. It is a democracy; it is a federation. It has not only one head but it has several heads. It has one large head, the House of Delegates, and several small heads. The House of Delegates meets at certain stated times and considers questions brought before it and goes home. In that length of time we cannot expect achievement and legislation such as will be found in the state legislature in session for sixty or ninety days at a time. It is quite out of the question. The work has to be rudimentary. That is the fault of the organization. As pointed out tonight, there is a rather mistaken conception of the Board of Trustees held throughout the land. I had the same view. When I was elected I went in with considerable hostility to conditions as they appeared to me. I thought, and I still think, some of them were true, there were faults that could and should be remedied. I watched carefully and I am continuing to watch and I have found, without saying things to you tonight as I would say to you if I had first said them to the Board of Trustees, that they are in a very peculiar situation. The Board of Trustees are a kind of financial group or board, with a limitation placed upon their activities and their powers. There should be, in my judgment, an efficient body, either a board of trustees or some other organization, giving a more continued service for the purpose of outlining policies, for determining methods to be pursued. In brief, scientific medicine has built up a splendid and successful organization and we are proud of it, but economic medicine, the practical side of the situation, has not been dealt with by the American Medical Association. The remedy lies, under existing conditions, in the House of Delegates. When such plans are worked out then for the first time the Association will work for economic medicine just as it has in the past for scientific medicine.

Dr. Edward H. Ochsner: The distinguished president-elect of the American Medical Association and a number of other speakers have stated that constructive suggestions would be welcome. Consequently I wish to submit the following:

In order to be concise, specific and definite, I have jotted down a few of the things that I think should be emphasized this evening.

The American medical profession is today facing

a crisis such as it has never faced in the history of the country. It will take men of clear vision and determined constructive ability to get it safely out of its present predicament. While this will mean great sacrifice on the part of certain individuals and the overcoming of many difficulties, it also offers unprecedented opportunity for great service.

The profession should oppose all schemes which unduly interfere with the individualism of the medical man or are paternalistic or which have a tendency to pauperize the public and thus destroy the self-respect and self-reliance of our citizens. It should fight doggedly against domination and control of the legitimate activities of medical men by the government or its agents, by lay politicians, by foundations and lay hospital boards. It should oppose socialized state medicine, subsidized community centers and hospitals under political or university control; legislative dictation of therapy and fees; demoralization of medical standards by the expansion of cults; exploitation of the specialties by lay technicians. It should repeal the unfair, unjust and undemocratic multiple representation and plural voting privilege by section delegates; it should work faithfully to stem the tide of overspecialization in medical education; it should do everything in its power to correct the iniquities of the Harrison Narcotic Law and its still more iniquitous and voluminous interpretations; to protect and defend the honest, sincere member in all his legitimate professional undertakings. If the man is a member of the American Medical Association and is guiltless, but simply the victim of persecution by an over-zealous or unscrupulous public official or the victim of the stupid interpretation of the law, the American Medical Association should come to his immediate rescue with all power at its command. If he is guilty he should be expelled from the medical association just as soon as the machinery can be set in motion to do this. If he is not a member, the press should be immediately informed.

This is a program and a platform to which I believe every honest, sincere, unselfish member of the American Medical Association can subscribe, on which he can stand squarely and for which he can and will fight if need be.

Dr. B. H. Breakstone: It is very fortunate indeed that we have a meeting of this kind. I am firmly of the belief that those who are running the American Medical Association are trying their level best and are sincere in their work and feel the great responsibility which they have in guiding us the right way. The only trouble has been that they have not kept with us, that they have not talked with us outside of the meetings, and in my experience within the last seven years every medical meeting has been a sort of Salvation Army program. One says, "glory halleluiah" and the other says "Amen." After they are out of the meeting then they begin to complain that they do not learn anything new or anything beneficial as a rule resulted therefrom. We should not criticize the past at all, no matter what has happened, but this evening

I was very much amazed by the words of one doctor about democracy and all that sort of thing. We all have had the experience that having sent an article into the *Journal* we may not hear from it at all or it is not published or we are told, "we have no room," or some sort of thing, but if we complain, they find something we have done in the past that does not entitle us to any consideration, but we do know that some of the leaders in our profession in the past have done many things which deserved not only criticism but had charges preferred against them. Let us forget all about that and see what we can do for the medical profession. After all, if you wish to improve yourself scientifically, you must have three square meals a day devoid of the usual worries which every one of us has who is not born with a golden spoon in his mouth.

A great many things have been brought up this evening and yet nothing definite, but we do know this, that another thing that is personified greatly is the poor family physician. By the way, that leads me to quote an observation of a cousin of mine who has been in the Probate Court for twelve years. I asked him how many doctor's estates had to be probated within that time and he said three. You can imagine how wealthy we all die.

Among the many things that have been brought up this evening, I recall two; one was the rural physician. He cannot remain in the country, not because he does not want to remain there, but because he cannot see his way clear to earn enough to send his children for education to the larger universities. Why is it? For more than twenty years we have had better roads, better means of communication, we have everything that ought to keep a man in the country and yet he does not remain. The answer is, and that leads up to the second problem. It is the eleemosynary hospital. Wherein does the eleemosynary hospital interfere? Right here is the evil, the eleemosynary hospital goes to the public for its funds. Those funds which are collected are supposed to help the worthy poor. Just how they help the worthy poor I will show you. More than 80 per cent of that money goes to help to attract patients from all over the country. They do not have to live in the community where this money is raised for the worthy poor. For instance, in the average hospital, if you look at their report, you will find that 75 per cent of the patients are competent to pay. You can get a good bed in most of these hospitals for two or two and a half per day. You do not have to live in Chicago either. The balance of that money was collected for the worthy poor. I have no quarrel with the hospital that tries to come up to cost. At the Presbyterian Hospital, I dare say the minimum cost, because they have a good business manager, is \$3.50 per day. What about the worthy poor? He applies for a bed, his history is taken from the time of Adam and then he is sent home. He is investigated and some more time lost and when he is found worthy to occupy a bed, what happens; he is told that he will be put on the waiting list, and if he waits long enough

he will get a bed, provided he does not die or get well. That happens every day. Now the injustice of it is that we are injuring the people who gave money to help the worthy poor. Another thing: the poor man is deprived of his choice of a doctor which the patient paying the minimum fee for a bed does not have. I have no objection to persons getting a minimum price on bed, but I believe that person should be told, "he is getting 80 per cent. charity" and if he is a self-respecting person he will say, "I do not want it." I claim the private hospital is not deserving of encouragement. It is a very bad evil because it attracts people here from out of town who ought to be treated by their family physician.

Dr. Hugh T. Patrick: I think I would like first to remark that I run a little life-saving station down here in the loop and I extend a cordial invitation to Dr. Brown to come down and receive an intensive course of treatment for his ingrowing pessimism. When he is cured of that I want to subject him to a very systematic course of psychotherapeutics.

Also commenting on the Lord's prayer, there is another part of the prayer which I think applies to doctors, namely, "Give us this day our daily bread."

To be serious, I think Dr. Brown is wrong. I am thoroughly convinced, and my convictions permeate me through and through that the medical profession is better today than it has ever been, it has higher standards than it has ever had, there are more good doctors today than there were ever before and they stand better in the public eye than ever. They are a finer class of men and the public knows. There was never a time when the doctor was not criticised. Now today we want to be optimistic, because we have got ground. Our medical education is much better than it has ever been. I can remember when the county society in the state of Ohio could license a doctor to practice medicine whether that doctor had attended a medical school or not. Can you conceive of anything like that today?

Then I want to say a word about the poor doctor in the country, the corn-patch doctor. It has been my pleasure, my profit, to go out and talk to county medical societies in big towns and little towns and I want to say that those county societies are getting bigger and better and on a higher level year by year. They are well informed men in those county societies, taking an interest in medical science. Of course, they are all over the country today. Here is the bedside doctor who needs so much sympathy. God knows I was a bedside doctor for a long while with very few bedsides. There was no American Medical Association or any association that came around and gave me a helping hand and I am mighty glad they did not. I see here before me a good many very successful men who started in that same sort of a way and God knows they benefited by the fact that they climbed the stairs themselves and were not given any assistance. Having been a bedside doctor, and I doubt that there are five men in this town who started down as low as I

started—I would like to tell you something about it, but it would take too long—I am in a position to discuss it. How many of you successful men wish you had help? None of you. You climbed your own stars and you made your own way. That is what makes men of you and makes the public look up to you. The same thing applies to the bedside doctor. Now to go back to the bedside doctor, if the bedside doctor can deliver the goods, if he works incessantly and with intelligence, it will not be long before he cannot keep the patients away.

Dr. Wendell C. Phillips, New York, Trustee, American Medical Association: Having first seen the light of a day in a little farmhouse in the rough, rugged valley of the St. Lawrence, also having known what it means to go a bare-foot boy to a great city, as Dr. Patrick said, without money, without friends, and to have carved your way to make an honest living, I believe I am somewhat qualified to speak for the physician.

There are two or three things I have been very much impressed with. Only the day before yesterday in passing through the streets of New York I saw on one of the bulletin boards a statement that made a very deep impression on me, and that statement was, "We fought for our country in war, let us fight for our country in peace." To my mind there was a text and it meant we fought for our country in war and now we fight for the upbuilding of our country in peace. That is the theme that I would hand over to you tonight for your careful consideration as we are considering in the Board of Trustees of this great Association today, to upbuild in every possible way the profession of this great country.

I would like to say to Dr. Humiston that I agree with every word he says and I want to say also to Dr. Humiston and through him to this great state society and to the constituent medical societies of this great state that there was not one suggestion in his address that has not been before this Board of Trustees and receiving most careful consideration, with plans being laid in every possible way to meet these conditions. I believe when you come to listen to the report of the Board of Trustees before the coming meeting of the House of Delegates, you will find some of these things published. In the November 26 issue of the JOURNAL was a statement by Dr. Billings, which I quote herewith, "As members of the Association, we will oppose any measure which will separate the practitioner of medicine from his patient, or any measure which will in any way restrict the private practitioner in discharging his function or interfering with domiciliary visits." That is a resolution which has emanated from the Board of Trustees. I do not know how we could put in a stronger way or in a more forceful way. You must remember that it is only a short time since the war closed, when every activity of this great Association was turned over and yet some of you may not know how much the Association contributed by placing its facilities with the government. Now we

have entered this period of reconstruction. So far as the time has been allowed to us I want to say that the Board of Trustees in addition to its regular function shall endeavor to meet conditions for which we are being criticised by men who do not know the facts. I am not going to take up a great deal of your time but I want to say that so far as the trustees of this organization are concerned, the Board of Trustees is functioning.

Dr. Charles W. Richardson, Washington, D. C., Trustee, American Medical Association: I did not come tonight with the intention of making any remarks. I came to hear a sermon and to enjoy the discussion. I have enjoyed each and every remark that has been made. They have been enlightening to me. *This spirit of unrest which is seen to pervade a great portion of the west I am pleased to say has not affected my part of the country and I am somewhat surprised at the extent of it.* I cannot exactly define it. In my locality, the adjacent states of Maryland and Virginia are frequently coming in contact with us in that the Medical Society of North Virginia meets two or three times a year in Washington and we go to their places of meeting. The same with the Frederick County and the Prince George County Society of Maryland. In those associations we find the same type of men as I see here tonight and they seem healthy, wholesome, optimistic and non-critical. I feel that a good deal of this feeling of unrest is a part of the general unrest of the country, of the general pessimism that follows disturbed conditions that have been present for the preceding three years of the war. It is natural in all associations, not only medical but other professional organizations, that one of the causes of this can be traced directly to ourselves. We are a little inclined to be unjust to one another, to be a little fault-finding, not only with our environment, with our associates, but with things in general. I believe if we would get on a higher plane and be less suspicious, be less critical, be more constructive, be more optimistic, be more willing to work to aid each other and thereby aiding ourselves, we will eliminate a great deal of this criticism which exists among us. We are too much given to our own selves, to introspection. We are really unsocial to the man. We do not mingle enough with each other to understand and know each other and therefore we grow suspicious of each other. I think that if, as Dr. Brown has said, the indifference of the members of the county medical societies and the district medical society, was overcome and that they would work for the betterment of the district medical societies, that the whole body of the medical profession would go forward instead of going backward. You cannot stimulate a man unless he has got a heart. If he has a heart and is willing to work and willing to look upon things from an optimistic point of view, he is bound to raise himself and to succeed. I feel also that a good deal of this unrest among the men in the district and county societies has been due to the fact that a great many of them have served in the Army

and have served in the Public Health Service and they have seen conditions existing in applied medicine which they cannot carry back with them in their civil practice and that has made a great deal of unrest among medical men. We must consider all these things and consider how they play upon the medical body.

Dr. Horace Manchester Brown, Milwaukee, Wis. (closing): It would be a very unhappy or unfortunate thing for me to leave you misunderstanding me. When I came before you I expressed the idea that I came as a missionary. It was not exactly my opinion that the medical profession was a wreck because of the indifference or animosity of the general practitioner who makes up the county medical society.

I wish to give Dr. Humiston an item. This morning I was operating at the Milwaukee Hospital. A well-known practitioner came in while I was operating and told me this story. About ten o'clock last night he was called to see a patient who had had a very large, multiple ovarian tumor removed ten years ago, after which she had a hernia. When he got to the house he found the patient in bed and sitting by the bed was a Christian Science reader, reading Mary Baker Eddy's book. She had been reading since five o'clock in the evening. When he examined the patient he found that there had been a spontaneous rupture of the abdomen, and about four feet of small intestine was exposed and lying on the surface of the abdomen, the Christian Science reader not having succeeded in persuading the bowel to return to its habitat or in closing the ruptured belly. Christian Science is a recognized form of practice in Wisconsin.

As to my distinguished friend who thinks I am an old man, the young men who are coming out of schools today and going into the country to practice are meeting with these things which I have described and which have been made clear to me by the everyday practitioner. They are indeed highly educated but not highly nourished. I regret very much indeed that in a way this discussion has seemed, from the replies made by the gentlemen of the Board of Trustees, to have been an accusation. I particularly stated that I wished to let it take a constructive form, that it should not be a querulous exposition of conditions nor destructive in character.

As for pessimism, I was born at the foot of Cape Cod and lived in Boston at one time. I began life as a boy on a whale ship and I speak no word of criticism to the man who has grown from nothing. I recognize indeed that hardship makes men self-reliant and puts them upon their feet in our profession as well as in any other. I would say to the distinguished gentleman who has the life-saving station in this neighborhood that while a pessimist is supposed to be a man who sees only the hole in the doughnut, we from New England see not only the hole but the rim, while you who criticise see only the rim and has no idea of the value of the whole. (Applause.)

THE RELATION OF SPLENIC SYNDROMES TO THE PATHOLOGY OF THE BLOOD*

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Many diseases have been named on the basis of a purely symptomatic syndrome, the names being merely convenient hooks on which to hang a miscellaneous assortment of obscure conditions. The absence of definite etiology and pathology, however, is somewhat compensated for by a rather definite symptomatology which gives an appearance of reality to obscurity.

For many reasons disease syndromes of the spleen have been most remarkable in this respect. The spleen is an organ whose removal in health causes no profound or permanent change in the human economy, whose function, such as it may be, is readily taken over by other organs or tissues, but whose diseases are capable, directly or indirectly, of producing most serious constitutional changes which may lead to death.

A survey of these so-called splenic syndromes should not be too closely concerned with the details, but it should rather be an attempt to obtain a perspective of the phenomena as a whole. The most interesting of the splenic syndromes are those which concern the blood. The blood may be looked on as an organ in the form of fluid, instead of a connective tissue medium, its function being to carry oxygen and food to the body, to remove from it the ash and waste products, and in addition to carry noxious agents of all sorts which may gain entrance to the blood, to the kidneys, mucous membrane, and skin for elimination, or to the vital laboratories, of which the liver is the chief, for defense. The spleen, considered from this broader conception, is concerned with the purification of the blood, and is one of the agents whereby worn-out red cells and infectious or toxic material of various kinds are filtered from the blood stream and directed to the liver, the great metabolic and detoxicating organ of the body. In other words, the function of the spleen and the pathologic misfortunes which it sponsors concern chiefly the blood stream. It would appear that the spleen is not the principal agent, but that it is rather

an organ of destruction through which the principal agent works.

Always it is our desire to place our hands definitely on a certain organ and say, "Here is the trouble," but indefiniteness lurks around the spleen. Even when splenectomy results in alleviation of the symptoms, or in cure, we are by no means convinced that the spleen was the cause of the ailment. We are only sure that by removing it we have eliminated an organ of destruction or perhaps broken a vicious circle. It is my purpose at this time to speak of five syndromes in which the spleen may play a prima donna role. Four of these, splenic anemia, pernicious anemia, hemolytic icterus, and polycythemia, concern the red blood cell, and one splenomyelogenous leukemia, concerns the white blood cell.

Splenic Anemia: Splenic anemia is a clinical entity. Its chief characteristics are idiopathic enlargement of the spleen and chronic progressive and intercurrent anemia, with leukopenia. These are the antecedents of phenomena related to portal circulatory obstruction, such as gastrointestinal hemorrhage and ascites, which eventually cause death. If an attempt is made to study the clinical picture of splenic anemia in its minutiae, it will be found that the picture fades quickly, since the cause of the condition is obscure and pathologically often does not present distinctive characteristics; only when the picture is seen as a whole and by exclusion is a diagnosis possible.

Since the publication of Osler's article, in 1900, the principal advances in the investigation of splenic anemia have been made in connection with the recognition of those conditions which, although they simulate splenic anemia, have been found to have a specific cause. Hemolytic icterus, in which the jaundice is slight and intermittent, had been confused with splenic anemia. Occasional cases of pernicious anemia, in which the spleen is greatly enlarged, had also been thus improperly classified, not because the resemblance was striking, but because an enlarged spleen and the anemia were regarded as characteristic of the disease, and further investigation for the purpose of making a correct diagnosis was not made. The splenomegalia of syphilis also is now recognized, and the enlarged spleens of chronic malaria, chronic sepsis, tuberculosis, and Gaucher's disease have been removed

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from the splenic anemia group as characteristic diagnostic features have been recognized. Various competent observers believe that von Jaksch's disease (infantile pseudoleukemia) is the infantile form of splenic anemia, in which the presence of a leukocytosis and abnormal marrow cells may be explained by the transitional characteristics of infant's blood.⁷ Von Jaksch's disease is probably a syndrome caused by various infantile disorders. There still remains, however, a number of cases in which the clinical picture of splenic anemia is present, and the cause is unknown.

The chief pathologic conditions found in the spleen in splenic anemia are generalized fibrosis, thrombophlebitis, and atrophy of the pulp cells. The deposits of connective tissue, endophlebitis, and compression atrophy of the malpighian corpuscles, are not grossly different from those of the splenomegalia of syphilis, malaria, and other diseases of known origin, associated with fibrotic spleens.

A patient with chronic fibrotic splenomegalia who presents characteristics of chronic secondary anemia, but who is not relieved by treatment, is potentially a sufferer from splenic anemia, and will probably be cured by splenectomy without regard to the cause of the disease. This has been especially true of patients with syphilis and malaria.

The relation of splenic anemia to Banti's disease: In 1883, Banti described splenomegalia and chronic anemia with cirrhosis of the liver. In numerous communications since, he added various diagnostic criteria which have still further obscured rather than clarified the subject. However, these criteria have made it possible to designate as Banti's disease almost any form of splenomegalia accompanied by anemia and liver changes in which a definite etiology cannot be established. Moschowitz, in a critical analysis of Banti's disease, came to the conclusion, with which I think nearly all observers agree, that Banti's disease cannot be distinguished from splenic anemia, and that what is ordinarily called Banti's disease is a terminal stage which may be found in some cases of splenic anemia. That many patients die from splenic anemia without liver changes is certain. That some patients have cirrhosis of the liver at an early stage of splenic anemia is also certain.

Ascites, without changes in the liver, may

occur in splenic anemia. The mere presence, therefore, of ascites in connection with splenomegalia is not sufficient to demonstrate that the liver is at fault, although I believe it may be said that anemia is not a marked feature of primary cirrhosis of the liver even if there is ascites, while in splenic anemia it is an early and more or less continuous manifestation. It seems probable that certain as yet unidentified toxic agents strained out of the blood by the spleen are responsible for the fibrosis of the spleen, and the changes in the spleen for the cirrhosis of the liver.

It is also known that the spleen acts as a filter, removing bacteria from the blood stream, as in typhoid and tuberculosis; protozoa, as in syphilis and malaria, and undoubtedly other noxious agents. The spleen, unable to destroy these various substances, sends them through the splenic vein to the liver for destruction, and the reaction of the liver to chronic irritants is in the nature of a connective tissue disease which we speak of as cirrhosis, without regard to its cause. If the spleen is unable to rid itself of all the material that it filters from the blood stream, sequestration of the filtrates may occur and give rise to the various splenomegalias with assured etiology, such as those due to the *Spirocheta pallida*, *Plasmodium malariae*, *Bacillus typhosis*, *Bacillus tuberculosis*, and to others which have as yet no known etiology.

The spleen has differentiated and characteristic cells. It is, therefore, capable of varied pathologic conditions. The liver has but one type of cell with different physiologic activities, and its processes are less varied. The reaction of the liver to chronic irritation, which reaches it by way of the portal system without regard to cause, is usually a fibrosis which we call portal cirrhosis.

The portal cirrhosis of Laennec does not vary in type, whether produced by gin or pepper, or whether it is found locally around areas of tuberculosis, gumma, or cancer. Usually cirrhosis is diagnosed with the hobnail variety of Laennec in mind. Yet in my experience, accepting 1560 gm. as the weight of the average liver, the cirrhotic liver is as often enlarged as it is contracted. As pointed out by Osler, the beer drinker and others may have huge, smooth, cirrhotic livers, in which the characteristic fibrosis is smoothed out by deposits of fat. On

this assumption, therefore, it could be said, inferentially, that the type of splenic anemia which is accompanied by cirrhosis of the liver and has been called Banti's disease is a condition in which the fibrosis of the spleen and the fibrosis of the liver are due to the same agent, that they have a common etiology, and that the removal of the spleen when the disease is not too far advanced cures the anemia by preventing excessive blood destruction and prevents these toxic substances reaching the liver so that the cirrhotic process in the liver itself is checked and the ascites disappears. We have patients, whose cases fulfilled this description, alive and in good health for years following splenectomy.

I have previously called attention to the fact that there is another element of relief following splenectomy which must be taken into consideration. In the normal condition 25 per cent. of all the blood carried to the liver comes through the splenic vein, while in enormously enlarged spleens the splenic vein may be the size of the portal vein. The removal of the spleen in these cases relieves the liver of an overload, and it then becomes able to carry on its function without those evidences of circulatory obstructions that result in ascites and hemorrhages. Splenectomy may, therefore, be looked on as equivalent to establishing an Eck fistula or the condition we attempt to bring about by establishing collateral circulation, after the method of Talma, Morison, and Drummond, through the vascular channels of Sappey, a condition with advanced cirrhosis described by Fagge as found in some persons killed by accident while in apparent health.

The changes found at necropsy after death from splenic anemia are not necessarily to be considered the condition that exists throughout the whole course of the disease; they are to a large extent terminal. All the patients operated on who were not in an advanced stage of the disease recovered, after splenectomy, and the majority have remained well. We must, therefore, look on ascites, edema of the lower extremities, and cardiorenal decompensation as terminal conditions which increase the dangers of operation. Yet the spleen may be removed successfully even in the terminal stage of the disease. We have operated on a number of patients for splenic anemia who had extensive cirrhosis of the liver, many of these of the Laennec type.

Following splenectomy the ascites disappeared and the hemorrhages from the stomach stopped; the majority who recovered from the operation are alive and apparently well after some years. The spleens in cases of splenic anemia are usually adherent and difficult to remove, and in the late cases when endophlebitis and thrombosis are marked the danger of an acute thrombosis of the large vessels of portal circulation is great. We have operated on seventy-four patients with splenic anemia of unknown origin with nine deaths. This does not include a number of splenectomies for splenic anemia of known origin, such as syphilis.

Pernicious Anemia: The etiology of pernicious anemia is unknown, the early symptoms are indefinite, and by the time the diagnosis can be made the disease is incurable. The disease may be described as a progressive degeneration of the red blood cell or, more picturesquely, a cancer of the red blood. In contrast to splenic anemia, which is of the secondary type, the blood picture in pernicious anemia has characteristic cells which, more or less, identify the disease. The color index, or hemoglobin percentage, is higher in proportion to the number of red blood cells than in the secondary anemias. The lemon color of the skin, sometimes with an icteroid hue, is so different from the color of the skin in the secondary anemia that sometimes a diagnosis is possible by looking at the patient. This icteroid hue is more prominent in cases in which hemolysis is marked, as shown by examination of the duodenal content after the Schneider method. If we might assert that in cases of pernicious anemia in which hemolysis is most marked patients have a greatly enlarged spleen or that the spleen exhibits definite pathologic changes, we would have succeeded in establishing a direct connection between the enlarged spleen so often found and the disease. Unfortunately, our experience does not support this hypothesis, and the size of the spleen does not seem to bear a definite relationship to the severity of the disease. Necropsy, after death from pernicious anemia, as a rule, shows a small spleen, but in two only of our cases was the spleen below normal weight at operation, and both were terminal cases.

The average weight of the spleens removed in our cases of pernicious anemia was 400 gm., exclusive of two large spleens, one of which weighed 2220 gm. and the other 1600 gm. It

seems probable, therefore, that in pernicious anemia the spleen is enlarged during the early and middle stages, and that the contraction so often found at necropsy is a terminal condition. The question is as yet unanswered whether pernicious anemia is a definite and specific entity, or whether it is a terminal change of several conditions, and recognized only as pernicious anemia when the patient has reached a stage which we know will eventually cause death. I have been struck with the fact that after complete gastrectomy the patients have much the appearance of pernicious anemia and even more striking is the resemblance between anemias having their origin in certain diseases of the proximal half of the colon and pernicious anemia.

Any form of treatment for pernicious anemia may prove, or at least may appear, to be beneficial. Even without treatment these patients have their ups and downs, and it is not an infrequent clinical experience to have a patient present himself with symptoms which might be construed as being those of an early pernicious anemia, and then with or without treatment recover and remain well. In eliciting the history the physician finds that the symptoms are often indefinite in the earlier stages, before the blood changes become characteristic.

Eppinger first suggested splenectomy as a cure for pernicious anemia, and the early reports with the abundant testimony of temporary relief were quite sufficient to give the operation a fair trial in this hopeless disease. Considering the confusion which so often attends the early diagnosis, it seems probable that obscure cases of hemolytic icterus and splenic anemia have been accidentally included in the pernicious anemia group. Removal of the spleen in such cases may have contributed to the impression that splenectomy may cure pernicious anemia. In the investigation of our cases of splenectomy for pernicious anemia, great, although usually temporary, improvement has been noted. There is gain in weight, and improvement in the hemoglobin in the blood from an average of 38 to 72 per cent., and in the red cells from 2,000,000 to 4,000,000. Giffin and Szlapka found that of fifty patients with pernicious anemia for whom splenectomy had been performed in the Clinic more than four years before, 21.3 per cent. lived more than three years, and 10.6 per cent. are still alive more than five years. These patients have lived on an aver-

age of two and one-half times as long as a comparable group of nonsplenectomized patients. It would appear that the spleen did not, on its own initiative, destroy the red cells, but that it acted rather as the agent of destruction, and splenectomy accomplished its purpose in so far as it removed the destructive agent, breaking up a vicious circle, but probably not otherwise influencing the course of the disease. Evidently in pernicious anemia the patient is not able to produce normal cells, but the cells are capable of function, and splenectomy prevents their destruction. The cord changes are not greatly improved by splenectomy. In our experience in the cases in which the results were most favorable the symptoms were those less characteristic of pernicious anemia. In young and middle aged persons, in whom the disease is rapid, especially if hemolysis is known to be marked, splenectomy is worthy of trial. On the whole, it may be said that whenever pernicious anemia has developed to the stage in which the blood is characteristic, it is probably incurable, and terminal splenectomy is to be regarded as a means of palliation, and not of cure. We have splenectomized fifty-four patients with pernicious anemia with three deaths (5.5 per cent.). The three deaths occurred in the first nineteen cases and were due to the fact that the patients were operated on during crises in an exacerbation of the disease. Since we have operated on these patients only when they are on the up-grade, as after transfusions of blood, we have had no deaths in thirty-five cases.

Hemolytic icterus: Hemolytic icterus has not been classified with the anemias, but as pointed out by Kanavel and Elliot, the peculiar splenic activity results in an anemia which is the cause of death. The etiology of hemolytic icterus, as of splenic and pernicious anemia, is unknown. A well developed case of hemolytic icterus stands out with a vividness unequalled in splenic anemia or in pernicious anemia. These three diseases, all of unknown etiology and lacking sound pathologic foundation, when examined in detail are without distinctive features. Viewed in the perspective they are outstanding clinical entities. The characteristic features of hemolytic icterus are an enlarged spleen, chronic jaundice with exacerbations, normal bile colored stools, and absence of bile in the urine. It is certain that in hemolytic icterus the spleen destroys, unnecessarily, the red cells; the enlarge-

ment of the spleen may be in the nature of a work hypertrophy. Enlargement of the liver is usually present and may also be a work hypertrophy. In some of our cases sections from the liver showed definite hyperplasia of the cells. Sixty per cent. of our patients splenectomized for hemolytic icterus had gallstones due to the great amount of pigment which inundates the liver from the destruction of the red cells. As these gall stones may cause infection of the biliary tract, obstruction, and so forth, a very confusing clinical picture results, which the history and enlarged spleen must be relied on to clear up.

There are two types of hemolytic icterus, the familial or congenital type of Minkowski, and the acquired type of Hayem and Vidal. In the familial type the disease may be noticed from infancy and it may not be progressive: the patients live the allotted span of years in a fair degree of health, but with more or less jaundice throughout life. These cases are not uncommon and are to be seen in every community; in many instances a more serious condition develops which makes them indistinguishable from the acquired type, and like the acquired type, the disease progresses in the course of some years to a fatal ending.

Chauffard and Vidal have pointed out that the red cells are less resistant in hemolytic icterus than normally, and our experience confirms these observations. Sanford has worked out a simple and very reliable method for testing the fragility of the red cells; this is being used in the Clinic extensively and with great satisfaction. We have removed the spleen from thirty-seven patients with hemolytic icterus with one death. This patient was operated on during a crisis; this death should not have occurred.

Polycythemia: Polycythemia (rubra vera) is the opposite of anemia and signifies a condition of the blood in which the number of red cells is decidedly in excess of normal. This excess is constant and not due to temporary dehydration, such as sometimes results from diarrhea or profuse sweating, but depends on organic changes in the hemopoietic system, the nature of which is little understood. In polycythemia the red blood cells may reach from 8,000,000 to 12,000,000 and the hemoglobin may reach as high as 130; the increased viscosity of the blood causes the patient to present an appearance of cyanosis. The pathology of this disease is obscure, but one

characteristic feature is the enlargement of the spleen. Heretofore, the attempt, based on what we know of the physiology and pathology of the spleen, to connect the spleen definitely with this syndrome, has failed, and the splenomegalia has been looked on as an incidental rather than an etiologic factor in polycythemia. This interpretation is still further borne out by the fact that when death occurs other organs show changes of a somewhat similar nature to those in the spleen. Yet the enlargement of the spleen is suspicious, and the history of medicine is the graveyard of dogmatic attempts to substitute postmortem pathology of terminal conditions for the pathology of the living.

Gastric hemorrhages are one of the occasional signs of polycythemia, and in the anemic conditions which result, the spleen is reduced in size and the blood does not exhibit the characteristics of polycythemia. When the symptoms of the disease are reestablished there is coincident enlargement of the spleen.

Polycythemia was described by Vaquez in 1892, and in an early period Osler added greatly to our knowledge of the subject. If we accept the opinion of some careful observers who believe that the spleen not only destroys abnormal red cells, but also, to a considerable extent, controls through some internal secretion the productivity of the red cells of the bone marrow, we might explain the phenomena of polycythemia on the hypothesis that the spleen failed to destroy the normal number of red cells and produced a hyperactivity of the bone marrow.

In the Clinic, we have seen a few patients with polycythemia; one patient with an undoubted polycythemia was splenectomized shortly after recovery from a severe hemorrhage. The spleen weighed about 900 gm. General abdominal exploration did not show any remarkable pathologic condition outside the spleen. A section from the liver did not show hepatic disease. Following splenectomy the patient has regained his health to a remarkable extent, and all signs of polycythemia have disappeared. The time has been too short for us to know whether this remarkable transformation is permanent, but it leads to the thought that the spleen may be more closely connected with the disease than had been supposed and that splenectomy may, in certain cases, be indicated.

Leukemia: If there has been any one condi-

tion believed to be non-surgical and incurable, it is splenomyelogenous leukemia. The theory has been that at least 99 per cent of patients operated on for the disease would die as a result of the operation, and that the one who lived would not be benefited. Yet we have long known of therapeutic agents (benzol, x-ray, and so forth), which reduced the size of the spleen and, as might be expected, also improved the condition of the blood. With the use of radium, which could be applied readily over the area of the spleen, a vast change came about in the therapeutics of splenomyelogenous leukemia. I do not know of any clinical experience that is more striking than the good result which follows the application of radium over a huge leukemic spleen. Many times the spleen shrinks so much as to disappear below the left costal margin, and the white cells decrease from hundreds of thousands to below 10,000. I have even seen leukopenia produced, the white cells decreasing from 600,000 to 3,700 in five weeks. With this extraordinary reduction in the size of the spleen and the reduction in the number of white cells leukopenia produced, the white cells decreasing an equally extraordinary improvement in the anemia takes place, and the patient is marvelously benefited. As the spleen again gradually increases in size the white cells increase, the red cells decrease, and the patient loses ground. It is well to eliminate all of our presumptions concerning this disease and to pause for a moment in perspective. Have we, in considering operation in this condition, as in so many other instances, allowed tradition to hamper progress?

My first experience in splenectomy for splenomyelogenous leukemia was with a patient who came to the Clinic with a greatly enlarged spleen, and white cell count of 300,000, and a history of having had the disease for two years. There had been great improvement under x-ray treatment; at one time the white cells were reduced by it to below 50,000, but as regularly happens, the x-ray had finally lost its effect, and the patient's condition on examination was worse than it had been at any former time. The patient herself was greatly impressed with the definite connection between the size of the spleen and her condition, and was anxious to have the spleen removed. I operated and the patient recovered from the operation uneventfully. Within ten days the white cells had dropped to less

than 40,000 and she was greatly improved. She lived in good health more than two years following the splenectomy. On the basis of this experience, we have in a number of instances reduced the size of the spleen with radium until the blood count approximated the normal, and then removed the spleen. We have splenectomized twenty-nine patients for splenomyelogenous leukemia with one operative death. This patient died from pulmonary embolus fourteen days after operation. Seven of these twenty-nine patients are known to be alive and in good condition more than three years following operation, four more than four years, and one more than five years. I can not believe that these patients are cured, but the experience has been interesting and suggestive.

It is possible that we recognize leukemia as a disease only after it has reached the hopeless stage, or that it is a terminal condition of a much more common, although unrecognized, malady. These are interesting questions which can not now be answered. Leukemia has been called a cancer of the white cells. The leukemic spleen is not adherent, as a rule, and after it is reduced by radium is removed readily.

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CERTIFIED MILK*

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CHICAGO.

Certified milk is milk that is milked from clean, healthy cows by clean, healthy milkers, kept clean and cool from the cow to the consumer. That certified milk will be all that the first sentence implies there are some one hundred and forty rules and a corps of physicians, sanitarians, chemists and bacteriologists constantly safeguarding the product and inspecting the production and sale of the commodity. The details have been worked out by the physicians of this country and are the methods and standards of the American Association of Medical Milk Commissions.

The Milk Commission is a regularly appointed commission of the County Medical Society.

That the production of certified milk has reached such a prominent position in the dietetics of the invalid and child is entirely due to the efforts of the medical profession.

Certified milk is the product of the medical profession and is the forerunner of the many child-saving organizations.

Certified milk has been produced for almost a quarter of a century and was made possible only by the earnest efforts of a few physicians who felt that all the milk that could be had commercially was of such a character as to be dangerous to the child many times. The success of the venture proved beyond doubt that it was possible to produce and market a clean, wholesome milk.

That it was possible to produce and market such a milk as the certified product caused an immediate demand for a better commercial milk

and the various authorities demanded better and better product to be sold in the cities of this country.

It may be said that today there is little or no milk sold that is not wholesome.

The pasteurization of commercial milk is the last step in the direction of wholesome milk taken by the city and state health officials.

Most of the cities require a holding method of pasteurization; this is an advantage over the flash method in that it does not disturb the fat line to so great an extent.

The most ardent exponents of pasteurization do not feel that confidence in the method that had been hoped for and now consider it merely as a makeshift; an easy method of administration. The bacteria counts made of pasteurized milk is disappointing. Many of the samples picked up show counts way up in the hundreds of thousands and even millions.

The admission of the failure of pasteurization may be well exemplified by the fact that in the milk contests the bacterial standard for pasteurized milk is placed at one hundred thousand while that for certified milk is ten thousand.

It may be interesting to know that at the last national milk contest, held in Boston, milk shipped across the continent from Los Angeles received the highest award. That milk, the count of which was made when the milk was one week old, was less than a thousand per c. c. This certified milk was produced on a farm under conditions which may be maintained upon any farm with but few additions to the equipment. If there has been one thing proven in the production of certified milk it is that the excellence of product does not depend upon a high priced equipment but upon painstaking methods. It may be said without danger of contradiction that certified milk may be produced upon the average farm if the personal service and attention to cleanliness be maintained.

Certified milk has now advanced to that position in the commercial world that it is no longer considered the product of the rich man with a hobby but it is a commercial product produced under ordinary commercial methods. Certified milk can now be had in many of the restaurants and hotels, also, upon many of the dining cars throughout the country.

Certified milk is a product which through a

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quarter of a century of excellence of standard has produced for itself a reputation of the highest quality. This reputation is so well known that it has made commercial institutions desire to capitalize the fact by using the term in relation to their product.

There are courts of record that have decided that certified milk was a term applied to a milk produced under a regularly organized milk commission and that this product had been produced and sold for so long a time as to give it a meaning to the public and that the use of the term for other milk products was a fraud. That this is good law may be evidenced by the fact that when the attention of such users is called to the facts there is no difficulty in having them immediately stop the use of the term.

It is not the author's intention to go into any long discussion of the value of raw milk such as certified as compared to the commercially pasteurized product. During the passage of the various ordinances for compulsory pasteurization of all commercial milk there were many things stated on either side which would not stand the light of day. However, it may be safely said that by far and large the opinion for a safe raw milk as compared to a pasteurized milk is held by the large majority of physicians. Certified milk should be obtainable in every city, village and hamlet in the state of Illinois. Each county medical society should form a milk commission and have milk produced under their certification or receive it from some county that is having such milk produced.

The demand for certified milk is as general as there are artificially fed babies.

The need of a safe food for the baby is ever before the physician. Certified milk is a safe food, introduced by the medical profession, produced under the supervision of the medical profession and prescribed by the medical profession.

DISCUSSION

Dr. R. R. Ferguson, Chicago: I can agree with the speaker in two or three points but disagree in other points. You must have trained men who understand certified milk as certified men do. We have been in New York, and as you know the milk law there admits certified milk under grade "A" milk raw, which they admit is the best milk coming into the city, but they also get in a grade "A" raw which may be as good as certified milk, and yet is not certified.

What Dr. VanDerslice said about taking the com-

mon farm for a certified farm is important. One of our farmers put in a very little expense, but he put in personal supervision and that is what counts. There is no reason why any one cannot produce "certified milk" if the personal supervision is there.

The American Association of Medical Milk Commissioners is going to hold a milk contest in Boston; some of the milk is being shipped from as far as California, or even from New Orleans. If you do not understand how this is done, I might say that we designate the day the milk is milked. The express company keeps it iced continuously, and the point the speaker made in the discussion is, cooling the milk immediately, by which means we may keep it a month, just the same as you keep your eggs.

Dr. A. E. Campbell, Springfield: I was told by the Superintendent of the Feed and Dairy Department of the State that it would not pay to demand "certified milk." We do insist on *clean milk* and *cold milk*. "Keep the dirt out of your milk and cool it as soon as it comes from the cow" is our slogan.

We began our milk campaign in the cold weather—kept articles in the paper—just what each producer should have—hooded milk pails, a cooling tank, a surface cooler and cotton flannel strainer.

We also use the *Sediment Test*—this test brings before the producer in a concrete and convincing manner, the cleanliness of his produce by being shown the actual dirt in the milk. The producer is more easily convinced that his methods are at fault.

We use the *Acidity Test*—roughly speaking there is a direct relation between bacteria found in milk and its acidity. An acidity above two-tenths per cent is an indication that the milk will sour quickly. *Dirty milk sours quickly and is a loss to you.* We make it a business matter. We pay no attention to bacteria. Bacteriologists have done a great deal of harm in the milk business, as it has been urged that the healthfulness of milk depends on the *kind* of bacteria present rather than on the number. Few producers or even consumers know what bacteria mean or how their growth can be prevented. We have talked in plain terms that even farmers could understand, and we have gotten along very well. *Really what this country needs is dairy instructors more than dairy inspectors or even bacteriologists.*

Dr. J. J. McShane, Springfield: Today we know that to produce a clean milk with a low bacteria count proper attention must be given to the care of the cows, hands, etc., the cooling of milk to a proper temperature and keeping it cool until it reaches the consumer.

Not many years ago more attention was given to the type of barn, as to the flooring, construction, etc., but too little attention to details which if followed will produce a clean milk.

Dr. VanDerslice (closing): Of course in certified milk we have got to put safeguards around the farm that might not be necessary in a smaller community. For instance, we have to send doctors out to examine the health of the employees; we must have

veterinarians to examine the cows; we have to pay sanitarians to see that the sanitary conditions are up to the standard. But the Chicago Medical Society or any medical society should not be willing to put their stamp of approval over a product they are not overseeing. We have built up certified milk by careful surveillance. If you will keep the visible dirt out of milk you will keep a low count. We have examined many samples of milk and we are absolutely convinced that the bacteria count is in direct ratio to the visible dirt. But we have got to guarantee that every drop of that milk comes from tuberculin tested cows. We have got to guarantee that the health of those employees is good; that the cleanliness of that barn is equal to any ordinary household. That we must guarantee.

I believe that in Springfield the Sangamon County Milk Society could appoint a commission that would build up certified milk here. Dr. Weis' statement about getting four times as much for a quart of milk is true, but the farmer is losing on every pint. They cannot feed corn that is costing \$1.50 a bushel and make anything. You are bound to have these unevennesses; butter 29 cents a pound in Chicago—it is absolutely impossible to make butter at 29 cents a pound. We cannot talk prices here, but I believe we could make a certified milk and sell it for 15 cents a quart here in Springfield.

We know what every quart of milk costs on the certified milk problem, because we have business men, and I will grant you that the fact of figuring costs also adds to the question of cost of certified milk, but successful business today considers it essential.

HEADACHE FROM THE STANDPOINT OF OPHTHALMOLOGY AND OTOLARYNGOLOGY*

G. HENRY MUNDT, M. D., F. A. C. S.,
CHICAGO

This subject covers so large a field that the discussion must of necessity be rather cursory, and no effort will be made to cover infrequent and unusual conditions.

Probably at least fifty per cent. of persistent headaches are of ocular origin and this estimate is very low indeed, many reliable observers placing it very much higher. However, in a fairly large proportion of the patients the symptoms are so definitely associated with use of the eyes they seek relief direct without ever seeing the general practitioner.

Headache is a frequent symptom of acute inflammations of the eye and one owes it to his patient to rule out such serious conditions as

iritis and glaucoma before he proceeds to the treatment of these patients. However, time will not suffice to consider this phase of the subject.

By far and large the greatest number of eye headaches are caused by eye strain. When one considers the visual necessity of today and the rather complex process of obtaining the desired use of the eyes there is little wonder that so many patients have asthenopic symptoms.

The method by which a patient gets a headache from his eyes is very interesting and by far from settled, but its discussion at this time is not pertinent.

Errors of refraction and heterophoria (muscular imbalance): When he looks at twenty feet or more the muscular portion of the eye is at rest; however, when he looks at a shorter distance, such as for close work, the ciliary muscle and muscles of convergence are in constant action and may be for hours on end. This being true, I wonder that any individual can do constant close work without trouble. If the individual be hyperopic (far sighted) his ciliary muscles are in constant action even for distant vision and when he accommodates for close work the extrinsic muscles and ciliary muscle are under much greater effort, and are very apt to cause some symptoms.

Astigmatism is even more apt to cause symptoms because of the unequal pull on the ciliary muscle in its effort to overcome the unequal curvature of the cornea.

Myopia (near sightedness) is less liable to cause headaches than any other error of refraction; however, it often does, and this is especially true if there be a disparity in the error of the two eyes or if it be myopic astigmatism.

Heterophoria (muscular imbalance) is of vast importance as a cause of headaches and the condition of the external ocular muscles is of great importance in determining the proper handling of the patient.

Few patients have refraction headaches after the age of presbyopia (old sight). However, I am convinced that occasionally one does have trouble.

Occasionally one sees a patient with spasm of accommodation which will convert a hyperope to an apparent myope, since he will accept only a concave lens. This is one of the strongest arguments I know for proper refraction; i. e., to determine the real error of refraction by use of

*Read before Englewood branch, Chicago Medical Society, Nov. 1, 1921.

the retinoscope as well as with trial lenses when the pupil is dilated and the accommodation relaxed.

The ache is more frequently frontal, temporal, or post-orbital. However, general headaches are not infrequent and occipital ache of ocular origin is common. In most individuals the ache is bilateral; however, it may be and often is unilateral, especially is this true if there be a disparity in the refraction. It is stated that the ache may be in the back of the neck and even beyond; however, I would rather be a little too conservative here than too enthusiastic.

In determining the error of refraction, unless the patient be over forty or forty-five, and often even then, the accommodation should be relaxed with homatropine, hyoscine or atropine, depending on the age, atropine being used in early life and hyoscine or homatropine later; however, in adults atropine alone may suffice to satisfactorily determine the error.

The findings when the pupils are dilated should be compared with the findings at the trial case when the accommodation is intact to arrive at a conclusion as to the proper lenses to prescribe. Also one must consider general health, occupation, etc.

One may be rather certain that if a patient develops headache after use of the eyes for close work or for distance that he has an error of refraction or muscular imbalance, or that it is not properly corrected. However, there is the occasional individual who has asthenopic symptoms after careful refraction and attention being given to details of posture, illumination, etc.

Much improvement has come in recent years in illumination for work and much is still needed, and it is important that illumination be not too bright or too dull, that it be of proper quality and be from the right direction.

Frequently the vision of a hyperope is markedly blurred for distance by his lenses, but usually they should be worn constantly and because a patient has lenses is no certainty that an error of refraction is not responsible for his trouble. So one should bear in mind that lenses are very frequently prescribed to relieve eye strain and if they do this the vision may be blurred in some patients.

In closing the subject of ocular headaches, which I have largely considered as refractive

headache, remember that an axiom of much value in refraction is *when in doubt use atropine*.

The ear is infrequently the cause of headache, but occasionally headache is relieved by inflation of the ears through the eustachian tube, which is done primarily for catarrhal otitis media, the symptom of headache probably being due to the decreased atmospheric pressure in the middle ear because of closure of the tube; i. e., it is virtually a vacuum headache.

As you all know headache is a common symptom of acute inflammation of the ear, however, their consideration is not pertinent here.

One would indeed be remiss if he failed to mention the tonsil as a cause of headache. However, I give it only passing mention, as it really should be considered as a focal infection, and the tonsil should not be disturbed surgically until all suspected foci of infection have been found and the tonsil considered the most probable and least difficult one to be taken care of.

Sluder has described very minutely and worked out with infinite care the details of what he called nasal ganglion or sphenopalatine ganglion headache. This is one of the most interesting and least known about headaches, but because of my inability to give you definite first hand knowledge of these so-called lower half headaches and because of the unsettled condition of knowledge of the condition I will only give it this mention. It is my opinion, however, that within a very few years this condition will either have established itself as an entity among neurologists and rhinologists, or it will have been forgotten, and I hardly think it will be the latter.

When the subject of nasal headache is approached we find a field which is virtually a closed book to the majority of physicians. This is largely due to the general lack of interest in the very important nasal accessory sinuses. However desirable it might be to go into the anatomy of the nose and its surrounding air-filled spaces, the lack of time precludes the possibility of this.

One thing is in my opinion very important in considering the accessory sinuses, and that is ventilation. We are apt to underestimate at times this very important point and think only of drainage. One should remember that normally there is no secretion in the sinuses and normalcy is maintained usually as long as there

is free ventilation; also when they are diseased, unless there is a definite bone involvement, if ventilation can be re-established there is the greatest likelihood that the sinus disease will clear up. Also I want to impress on your minds very strongly that a nose may be absolutely free of secretion and there be no pus infection in the sinuses and yet there be a very marked sinusitis which may cause any and all kinds of symptoms and be even a menace to life itself.

Contact between the external wall of the nose and septum is frequently the cause of headache, and should be looked for with great care. Contact is so important that Skillern says that his "experience would indicate that pressure from hypertrophies which so often co-exist with sinus inflammation is one of the main causes of persistent headache associated with this disease." This point re-emphasizes the great importance of very careful inspection of the nose both before and after the use of cocaine and adrenalin to shrink the soft tissues. When this condition is found there is in my opinion the strongest indication for its surgical removal.

Sinus headaches may be caused by one of the following:

First. Swelling of the mucosa with pressure or irritation of the nerves. (Skillern.)

Second. Closure of the orifice of the sinus with partial absorption of the contained air (vacuum headache).

Third. Absorption of toxins from the sinus.

Fourth. Blocking of drainage in a pus infection.

Fifth. Congestion of the mucosa due to infection.

Grunwald states that fifty per cent. of patients with chronic sinus disease suffer from headache; this is probably a conservative estimate.

It is my opinion that in no condition is the location of pain of less definite diagnostic value than in chronic sinusitis. However, there is a portion of the head which is more frequently the location of pain in disease of each sinus. Chronic maxillary sinusitis is apt to cause pain, heaviness and fullness in the region of the sinus. However, this is usually found to involve the entire side of the head. Chronic frontal inflammation causes ache in the region of the sinus but may be general. Sphenoid and ethmoid disease causes ache in the top and back of the head, while ethmoid disease frequently manifests itself

by ache between the eyes or deep set in the head, while sphenoiditis causes deep seated ache and frequently temporal and mastoid pain.

Heaviness and fullness is a frequent symptom of sinus disease and it is usually increased by stooping or straining, especially is this true if the condition is subacute or acute.

The thing that I am especially anxious to impress regarding sinus headache is that no matter where the ache may be a sinusitis may cause it, also that nasal discharge need not be present and even no history of an acute trouble may be secured.

Yankauer states that in headache or in head pain relieved (even only partially) by the inhalation of steam, sinusitis is the cause of the trouble. I think that this undoubtedly is true. However, failure to relieve the pain does not necessarily mean the absence of sinusitis, as there may not be a blockage of drainage from the nose.

There are a number of points that I wish to make here and some of them are repetitions:

First. If a patient has a headache which is relieved when secretion starts from the nose or is increased in quantity he has a sinusitis.

Second. If the headache follows an acute rhinitis, even though he has no discharge from the nose, sinusitis is probably the cause.

Third. There need not now be or ever have been a pus discharge from the nose.

Fourth. If the condition is relieved by the use of steam inhalation the symptoms are probably caused by a sinusitis, but this statement cannot be reversed.

Fifth. If the headache is accompanied by a sense of fullness, which is increased by stooping or straining, sinusitis is probably the cause of the symptoms.

Sixth. Not all headaches precipitated by use of the eyes for close work are of ocular origin; they may be, and occasionally are, vacuum frontal headaches. This point I am very certain of because of a number of cases I have treated.

Then how are we to proceed to find a nasal condition as the cause of headache?

The nose should be carefully inspected especially in the region of the middle meatus, being especially keen to note contact between the external nasal wall and septum; also the presence of pus in the nose. Then the mucosa should be contracted by the application of cocaine solution in the nose (and this certainly should not be by

spray). If after shrinking the mucosa pus is seen under or anterior to the middle turbinal there is probably some sinus disease. However, the turbinal (middle) may hug the external nasal wall so tightly that it is impossible to inspect this most important area, in which case it is my custom to infract the middle turbinal toward the septum. This is very simple and is perfectly feasible if the nose is fairly broad and the turbinal is not so large as to fill the entire space when the mucosa is contracted. In a number of patients this simple procedure done in the course of an examination has relieved apparently permanently the trouble.

Posterior rhinoscopy is of the utmost value in some cases of sphenoid and posterior ethmoid disease.

If secretion is secured from a sinus at the normal ostium following shrinking of the mucosa there is doubtless a sinusitis.

Trans-illumination must be mentioned, but the more I trans-illuminate and then compare with the roentgenogram the more convinced I become that trans-illumination is a valuable factor in diagnosis, but is not sufficiently reliable on which to base a diagnosis. The place where trans-illumination is of the greatest value, i. e., in the maxillary, because of the practical constancy of similarity of the two sides, we need it less than in the frontal, and these two are about the only place it is of value. I want to state in the most definite terms that no one is justified in operating (I do not include maxillary puncture) on a sinus simply because it is dark on trans-illumination. The inconstancy of the frontals of the two sides is to be very seriously considered when one is trying to interpret trans-illumination. I well remember a patient who had secretion in one side of the nose, the other being entirely normal. However, there was a distinct difference in the two sides on trans-illumination, the diseased side, which was draining, showing up fairly clear, but the other side was absolutely dark because of the virtual absence of a frontal sinus on that side. Also it occasionally is found that the diseased sinus is clearer on trans-illumination than its normal fellow. So I want to say over again when you think you have something definitely demonstrated by trans-illumination, verify it by other means before you proceed to treatment because it is so full of fallacy. However, I shall continue to use it in examination of sinuses. I realize that these statements would by some be

considered near heresy, but they are founded on the most valuable thing in practice—that is, experience.

The roentgenogram is of great value in nasal examination. However, many details are essential to get valuable information.

First. For diagnostic purposes flat plates, though not so spectacular as stereoscopic, are usually just as good.

Second. The angle at which the plates are made is very important, as for instance in making antero-posterior it must be directly from front to back so no shadow is thrown into a questionable area so that it is more or less dense than it should be.

Third. Learn to interpret your plates, and to do this the average man must have them at rather constant angles.

Fourth. Very valuable information can be secured relative to the frontals, maxillary and ethmoids by roentgenogram.

Fifth. By Pfahler's method I think very soon we will be able to get much information regarding the sphenoid sinus.

In closing let me impress you that in ocular and nasal headache the arriving at a diagnosis is by exclusion, and it is frequently impossible to place your hand directly on the cause of trouble without tedious detailed minute examination.

THE EFFECT OF OCCLUSION OF THE CORONARY ARTERIES ON THE HEART'S ACTION AND ITS RELATIONSHIP TO AN- GINA PECTORIS.*

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One might think that the subject of cardiac pain and coronary artery disease was almost threadbare, for angina pectoris has been talked of and written about for years and has become so familiar as to be commonplace. But when a careful search is made for very exact information concerning the actual cause of precordial pains, their importance, or indeed their precise relation to diseases of the heart muscle, the coronary arteries or the aorta, this exact information is meagre, or incomplete.

Since pain in the region of the heart is a symptom that quickly attracts the attention of

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the patient and frequently arouses not only his anxiety but that of his physician, it behooves us to take stock from time to time of our knowledge of this condition; to realize our limitations in interpreting the symptoms and to add what grains of information we may possess in an effort to elucidate more clearly its causes or its meaning.

Undoubtedly there are many patients who have severe precordial pain upon exertion and yet have no organic disease of the heart. This is particularly true of the young adults with effort syndrome or disordered action of the heart. The precordial pain in these patients is not a symptom of grave circulatory disease threatening life, and though we appreciate the insignificance of this pain, we are highly uncertain as to its origin. The precordial pain of mitral stenosis, that is so often localized in the apical region has an entirely different significance, and though it is associated with an organic heart lesion, it may subside as Mackenzie says when auricular fibrillation sets in and dyspnea appears on exertion. The pain of mitral stenosis is no more a warning of sudden death than is the pain of irritable heart. In aortitis and particularly that due to syphilis, the substernal pain which frequently radiates to the neck or to the left arm is a signal of danger ahead and these patients may without further warning drop dead.

It has usually been supposed, from the time of Heberden, that the serious forms of precordial pain were dependent upon disease of the coronary arteries for it has often been found at the autopsy upon patients dying of angina pectoris that the coronary arteries were more or less diseased.

From the time of Huchard, however, the French have emphasized the importance of disease of the aorta itself as a cause of angina pectoris, and among the English who have contributed so much to this important subject, Sir Clifford Allbutt has stood almost alone in upholding the view that the common cause of angina pectoris is disease of the wall of this great vessel.

With the more careful studies of the syphilitic form of aortitis which have been made in the last ten years our information has been somewhat increased as regards the pain associated with this affection. We now know from the

careful observations of Mackenzie and Head that pains connected with disease of the heart and aorta are referred through reflex impulses through the spinal segments to the peripheral nerves, and, therefore, are distributed to definite regions of the body which are often far removed from the seat of origin in the diseased organ. It is also known that the walls of the aorta, as well as of the heart, are well supplied with nerves which when irritated may arouse serious reflex phenomena. The physiological studies of Francois Frank, rarely quoted, showed well how paroxysms of dyspnea may follow stimulation of the root of the aorta in dogs. Thus the anatomical and physiological mechanisms are at hand, to allow of the transmission of stimuli from the root of the aorta to the spinal cord and one can readily conceive that some of these impulses might result in pain.

The pain in syphilitic aortitis is usually situated high in the chest, beneath the sternum and sometimes the manubrium. With great frequency it radiates to the left shoulder, the inner surface of the arm, the forearm or actually to the fingers. Occasionally the radiation is up the left side of the neck, into the jaw or teeth or even to the face. The attacks are often classic of angina pectoris and sudden death is not infrequent. The fact that the syphilitic process usually effects the root of the aorta and often produces in this situation narrowing of the mouths of the coronary arteries has led many to believe that interference with the coronary circulation is the direct cause of angina pectoris in syphilitic aortitis. It is indeed difficult in such cases to disregard a possible coronary stenosis, but there is considerable evidence to show that this is not the cause of anginal pain in all cases of syphilitic aortitis for typical cases of angina pectoris occur in syphilitic aortitis without the slightest involvement of the coronary arteries. In many cases, however, disease of the aortic valves gives rise to aortic insufficiency and it is difficult under these circumstances to exclude as a cause of the pain a sudden stretching of the wall of the ventricles, which Mackenzie considers of such importance as a cause of anginal pain. Although it is difficult to secure proof, the facts and observations at our disposal suggest very strongly that irritation and especially sudden stretching of the walls of the aorta as well

as the walls of the chambers of the heart may result in disagreeable sensations varying from slight substernal oppression to agonizing pain.

Occlusion of the coronary arteries whether slow or rapid is in itself a very serious disorder and the recognition of this disease by an analysis of symptoms and physical signs is of utmost importance, not only because the condition forms one chapter in the group of anginas, but because the life of the patient may hang on the diagnosis. The clinical syndrome that characterizes coronary thrombosis has recently received much attention and the excellent descriptions of Herrick have made many of the symptoms and signs of this disorder sufficiently familiar to allow of a probable clinical diagnosis in many instances. The picture in its typical form, however, is not common to observe and it, therefore, is important to add the information that may be gained from careful studies of such cases, especially when an autopsy can be obtained, so that our knowledge of this important disease may be enriched. It has seemed to me, consequently, of value, to bring together a group of such cases for study and analysis and to present a summary of the results at this time.

Many of the autopsies and the pathological work were done by Dr. Von Glahn and some of the electrocardiograms were collected and analyzed by Dr. Richardson.

From 1913 until July, 1921, there were observed at the Presbyterian Hospital, 17 cases of advanced coronary artery diseases in all of whom the final diagnosis was made at autopsy. Electrocardiograms were obtained in 9 of the 17 cases.

From the clinical standpoint the cases are fairly sharply marked into two groups, namely those patients who do not suffer pain, and those who do have pain. There were only four cases that were free from pain. The disease in these cases ran the course of rapidly progressive myocardial insufficiency.

In the second group of 12 cases, there were features of special significance which often were suggestive of some extensive, though rarely sudden damage to the heart muscle. In all of them pain either intermittent or constant and situated over the precordium and occasionally radiating to the left side or to the left arm, was a prominent feature. In only one was there any definite evidence of disease of the heart valves. This was

a case of aortic insufficiency. In three there were thrombi in vessels other than the coronary arteries, one case having suffered from gangrene of the toes due to what was supposed to be thromboangitis obliterans. In four, pericardial friction rubs were heard during the last illness. To illustrate the course of the disease in these patients, I may briefly review one or two of them.

A gentleman, 54 years of age, who had spent much time in Cuba, was admitted to the Presbyterian Hospital on June 9, 1921, complaining of an acute gastric disturbance. He had always been extremely healthy but 20 years ago after taking a very difficult and fatiguing horse back ride he had experienced a sharp and severe pain in the left chest that momentarily disabled him. From that time until 4 years ago he had to be quite careful in walking or riding for any extra exertion would bring on an attack of pain. He described the pain as though a band were drawn about his chest in the position of inspiration. He obtained relief by rest, by belching of gas and by holding his chest in the inspiratory position. For 4 years he had been getting progressively worse and his tolerance of exercise had steadily diminished. He had considered that he was suffering from some stomach trouble and had consulted many doctors all of whom told him that they could find no abnormality. The present attack set in with violent pain in the epigastrium at 8 o'clock in the evening and immediately after a meal. It was the most severe he had ever had. The pain extended laterally to the sides of both arms. He felt as if he had much gas on the stomach which he could not belch up. The pain had continued almost unabated during ten days. The patient, when he arrived at the hospital, was in much pain. He was slightly obese, was sitting up in bed, was pale, and seemed much prostrated. There was no cyanosis. There were considerable numbers of rales at both bases. The respirations were shallow and slightly increased. The pulse was rapid, 120, and extremely feeble. The blood pressure was only 96/68. The cardiac impulse could not be felt. The heart was enlarged to percussion. The heart sounds were feeble. There was a gallop rhythm but no murmur could be heard. There was no hyperesthesia over the precordial area or over the left arm. The abdomen was soft and not especially tender. The liver was palpable below the costal margin. There was no edema of the extremities. The impression then was that this patient had had attacks of angina pectoris and was suffering from acute cardiac insufficiency. The possibility of coronary thrombosis was considered. Digifolin was administered immediately and on continued digitalis therapy, diet and rest, his condition improved slightly. As the pain gradually diminished the signs of cardiac insufficiency appeared. There was edema of the ankles, enlargement of the liver and fluid in the pleural cavities. The gallop rhythm was replaced by a systolic murmur and the blood pressure rose to 110/80. The subsequent course was characterized by a progressive cardiac in-

sufficiency, attacks of dyspnea, and a few days before his death, the appearance of extra systoles. The pulse ranged between 90 and 120. The electrocardiograms showed various phases of bundle branch block. He died suddenly on the night of March 25th. The history and clinical course seemed to us to justify the diagnosis of coronary artery disease probably with thrombosis.

The autopsy disclosed the most extreme degree of coronary arterio-sclerosis with narrowing of the right artery and complete occlusion 3 cm. from its origin. The left coronary was calcified, the descending branch was occluded at a distance of 0.5 cm. from its origin and converted into a cord for 3 cm. below this point, while the circumflex branch of the left was calcified and plugged by a thrombus mass at its origin from the main stem. The heart was somewhat enlarged, weighing 450 grams. There was the most extreme fibrosis of the walls of the ventricle, particularly of the posterior wall of the left.

This history illustrates the course of events in those cases in which the disease pursues a long course, though the terminal and acute illness may be of comparatively short duration and death itself may come suddenly.

There are instances of coronary thrombosis, however, in which death follows shortly after the first appearance of symptoms, though in this series it was rare and occurred in only two cases.

The following is a characteristic example:

A music teacher, 44 years of age, was admitted to the Presbyterian Hospital on Nov. 20, 1914, complaining of pain in the pit of the stomach, which he had had for two days. Two nights before admission after eating in a restaurant he was seized with a sudden severe pain in both sides of the chest. It extended especially to the left and was more severe on this side. He was somewhat relieved by drinking hot water and belching. The pain recurred off and on since then and at times was terrific. It started in the pit of the stomach and radiated to the left chest. Recently it had been more constant but less intense. He vomited the day before admission. He was in exquisite pain and was relieved by lying on his back. The patient was rather a large man and was somewhat cyanotic, and writhed about in bed. There were a few rales at the bases of the lungs. The apical impulse of the heart could not be seen nor felt. The heart was somewhat enlarged. The sounds were short and sharp. There was a very short systolic murmur at the apex. The rate varied and at times was 150 to the minute, at others only 80. The blood pressure was 98/75. The abdomen was soft, but there was some tenderness in the epigastrium. The liver was just palpable at the costal margin. The temperature was 102.4. On Nov. 21, though the pain was somewhat better, his general condition had not improved and the paroxysms of tachycardia continued. On the 22nd, the pulse remained persistently at 170 and the electrocardiograms showed auricular flutter. He failed rapidly, Cheyne-

Stokes respiration appeared, he became pale and cyanotic, the chest pain continued, radiating from the epigastrium across the chest to the left axilla, his extremities were cold and clammy, a pericardial friction rub was heard and he died in collapse on Nov. 26. The illness was short, lasting only 9 days. It was suspected from the acute onset of excruciating pain with cardiac collapse and tachycardia and from the later development of a pericardial friction rub that the patient might have coronary thrombosis with infarction of the myocardium as a sequel.

The autopsy revealed general arterio-sclerosis with sclerosis of the coronary arteries of marked degree causing great narrowing of the lumen in both. In the descending branch of the left coronary there was a fresh thrombus about 1 cm. in length which entirely occluded the lumen. The vessel was besides markedly sclerotic and even where it was not thrombosed the lumen was scarcely permeable. The heart was enlarged and weighed 675 grams. There was a fresh fibrinous exudate over the pericardial surface. The left ventricle seemed to bulge. The cavity was enlarged and in the apex was a soft friable thrombus. The wall of the left ventricle corresponding to the distribution of the descending branch of the left coronary was thin and in places soft and friable. It appeared on section to be an infarct.

This case might be used to typify the classical examples of coronary thrombosis and yet the patient was really the only one in the group that presented this picture.

Finally, mention must be made of the single case of coronary embolus in group III.

A summary of these 17 cases shows that an occlusion of one or more important branches of the coronary arteries by a sclerotic process occurred in 6, occlusion by thrombi always associated with sclerosis in 10, and occlusion by embolus in an otherwise normal artery in one.

In the last case death occurred almost immediately and it seems probable from the reports of occasional instances of rapid and complete occlusion of a left coronary artery which had not previously been diseased, that death usually occurs instantly or within a few minutes after this accident in man.

There were certain features common to the remaining 16 cases.

Few patients succumb to this affection before the age of 50. Two patients were 44 and 48 respectively; 8 were between the ages of 50 and 60, five between 60 and 70, and one over 70. All but one presented symptoms of rapidly progressive cardiac insufficiency, and this one patient died of carcinoma of the stomach. In most instances the pulse was elevated and in many there

was some variety of cardiac irregularity. Occasionally there was fever and sometimes a moderate leucocytosis. Only two patients gave a positive Wassermann reaction. In one of these, there was a typical syphilitic aortitis with occlusion of the mouth of the right coronary by this process.

From the survey of these cases and a review of those which have been reported in the literature, it seems likely that we cannot well separate the different forms of coronary obstruction in the resultant changes in the heart muscle may be the same whether the occlusion is produced by thrombosis or by sclerosis.

Our information concerning the effect of interference with an absolutely normal coronary circulation is derived almost exclusively from experiments upon dogs, and according to the recent work of Porter, of Miller, and Mathews and of Smith, the ligation of one or even two branches of the coronary artery is not always fatal. Miller and Mathews tied the ramus descendens sinister without causing death in any of their dogs, and Smith in 11 dogs had a mortality of only 9 per cent. The mortality is much higher, however, when the circumflex branch of the left or the right artery is tied and was 57.54 per cent in Smith's experiments.

In spite of the fact that injections of the coronary arteries of man have shown that there are anastomoses between them and that they are not endarteries, it is problematical whether man would survive as does the dog, sudden occlusion of any large branch of the coronary system. In the few cases recorded of embolus to an otherwise healthy coronary artery or thrombosis of a large branch but slightly affected by sclerosis, death has usually been sudden. These, however, are the very rare occurrences, for as a rule, occlusion occurs in a vessel the lumen of which has already been slowly narrowed by sclerosis and one portion of a vascular supply, already distorted and made irregular by disease is suddenly shut off. Indeed, one is often amazed, in studying these cases of coronary sclerosis at the reduction of the coronary circulation and the serious damage to the myocardium that is still compatible with life.

We must recognize, therefore, that the disease starts actually years before it is usually recog-

nized. In a few cases, as the sclerosis increases insidiously, small branches of the coronary arteries are occluded and even thrombosis may take place until the damage to the myocardium is so extensive that the heart muscle at last is unable to carry on its work and symptoms of cardiac insufficiency supervene. As a rule, the appearance of these symptoms is rather sudden and unlike many other forms of heart disease, remissions are not common and the progress is rapidly down hill. In these patients there is no preliminary warning of the coming trouble, such as pain, and there may not be any distinguishing features to show that the myocardial insufficiency is dependent upon a diseased coronary circulation.

In another group there are features of such special significance that the clinical picture has attracted the attention of many and especially through the excellent descriptions of Herrick, they have been made familiar to us. The onset of the alarming symptoms is sudden and though the duration of life is short, lasting but a few days or weeks in most cases, a few patients may recover. In this group, pain is a significant feature, and allusion has already been made to the type; and the frequency with which it occurs in the precordial area, radiating to the left side of the chest or in the epigastrium or upper abdomen. The intensity and situation of the pain in the epigastrium may even simulate an acute abdominal condition.

The attack not infrequently follows a meal and as it may be associated with gaseous eructations or vomiting is ascribed to some indigestible food. In many instances, the pain is constant and persistent. The patient is prostrated, frequently pale, sometimes slightly cyanotic; the skin may be cold and he may be sweating. The respirations are increased and there are usually rales at the bases of the lungs. The pulse is small and almost always rapid. In many instances, there is tachycardia which may be either persistent or paroxysmal. In the majority of these very acute cases, the blood pressure is unusually low and the systolic may be below 100. The heart is enlarged, the apex often difficult to locate, the sounds are faint and if they are not too rapid a gallop rhythm may be detected or a systolic murmur. Within a day or two of the onset, the signs of cardiac insufficiency make

their appearance. Quite regularly, as has been emphasized by Libman, the liver is enlarged, and there is tenderness over it. The rales in the lungs increase, fluid may accumulate in the pleural cavities, dyspnea increases, the extremities become edematous. A very important sign indicative of acute infarction of the myocardium is the appearance of a pericardial friction rub, often localized and sometimes transient. The importance of this sign has recently been well brought out by Gorham. During this period there is usually fever of 100 to 103 degrees and there is often a moderate polymorphonuclear leucocytosis. In its characteristic form the symptom complex is so striking that it can be recognized without much difficulty. Death occurs, as a rule, within a few days to a few weeks, though occasionally patients with similar symptoms of moderate severity recover.

In the third group, the attack which has just been described is preceded for months or years by at least one premonitory symptom. This premonitory symptom is pain. It is often fleeting in character, sometimes mild, frequently occurs at irregular intervals but partakes of the character of the pain that is experienced during the acute attack and is most frequently induced by exercise or occurs after meals. In many instances, pain is the only premonitory symptom but in others the pain is associated with slight breathlessness or other evidences of myocardial insufficiency.

It is in this group that an excellent opportunity is afforded for an early diagnosis, if we had the criteria at our disposal, and perhaps for the institution of preventive measures that might prolong the cardiac efficiency and the life of the patient. In a certain proportion of cases, the examination at this time shows some enlargement of the heart with perhaps a systolic murmur at the apex. The radial arteries may be palpable and there may be other evidences of peripheral arterial sclerosis. In a few instances the blood pressure is elevated. A small proportion of patients give a positive Wassermann reaction, though this would cause one to suspect that the pain was connected with a syphilitic aortitis.

In a very fair proportion of patients, however, the most careful physical examination does not elicit any definite signs of disease of the heart and it is in this group that it is most difficult to

determine whether or not the myocardium has been damaged by interference with its blood supply or if so to what degree or extent the injury has progressed.

For a more accurate study of such cases, the electro-cardiograph has been employed and it has seemed from recent studies that significant changes may occur in some of the ventricular complexes in angina pectoris and coronary thrombosis that are indicative of disease of the heart muscle.

Lewis found that ligation of a coronary artery in dogs was frequently and rapidly followed by single extra systoles arising in one ventricle or the other. Within one to one and a half hours, there occurred rapid successions of ventricular extra systoles producing attacks of ventricular tachycardia at rates of 300 to 420 beats per minute. In some instances, the ventricles went into fibrillation and the dogs died. Smith has repeated these experiments on dogs, ligating the ramus descendens sinister, the circumflex sinister, the coronaria dextra, and combinations of these three and has confirmed Lewis' observations inasmuch as he finds as an early effect of ligation of these vessels ventricular and auricular extra systoles which may be followed particularly after ligation of the circumflex artery by auricular flutter, ventricular tachycardia or ventricular fibrillation. He continued to study the animals that survived and described a definite series of changes in the T wave that he considered characteristic of the effects of coronary occlusion. These consisted in an immediate marked exaggeration of the T wave with its foot point on the R wave and a change to negativity within the first 24 hours. Later there was a gradual reversion to its positive position with a final isoelectric or negative position.

Since the publication of these experiments electrocardiograms have been published from a limited number of cases which were proven to have coronary thrombosis at autopsy or were diagnosed as such from the clinical course of the disease, and in several instances the curves have conformed quite accurately with those obtained after experimental occlusion of the coronary arteries. Hermann reported 6 such cases with 3 autopsies. Electrocardiograms made in four cases, one of which came to autopsy showed ventricular tachycardia. Robinson reports four in-

stances of ventricular tachycardia in one of which thrombosis of the coronary artery was proven at autopsy, while in the remaining three it was suspected.

Previously Herrick had recorded a case of coronary thrombosis with autopsy in which electrocardiograms showed changes in the ventricular complex and in the T wave that corresponded almost exactly to those reported by Smith, and Pardee later published one case without autopsy, presenting the same type of electrocardiograms. Pardee felt that it was an electrocardiographic sign which is characteristic of coronary thrombosis. Willius in a recent electrocardiographic study of 155 cases of angina pectoris, found 18 cases or 11.6 per cent had the electrocardiographic alterations in the T wave described by Smith. In many other cases abnormal electrocardiographic curves were obtained and among these 22 cases had aberrant Q. R. S. complexes in all leads which conformed to the type obtained in animals or patients with bundle branch block. He, however, lays considerable stress on the significance of alterations in the T wave as an indication of myocardial damage.

A study of the electrocardiograms of nine of our cases that were proven at autopsy to have coronary occlusion adds rather inconclusive evidence to the cases that have already been published. In four cases there was auricular flutter. One of these patients had thrombosis of the descending branch of the left coronary artery and was the man who was described as dying within nine days of the onset of his acute pain, the other showed thrombosis of the descending branch of the left coronary artery. All showed extensive lesions in the myocardium supplied by these vessels. In two of these cases the flutter ceased and the rhythm became normal before death. In none of them were there significant alterations in the Q. R. S. complex and in none were there changes in the T wave that corresponded to those described by Smith and others.

Two cases, both with thrombosis of the descending branch of the left coronary artery, showed electrocardiograms in which the Q. R. S. complex was distinctly abnormal. In its widening, in its small size, and in its notching in all leads, it presented the appearance which has been described by Oppenheim and Rothschild and others and which is considered indicative of aborization

block. In three cases, one of occlusion of the right coronary, one of occlusion of the circumflex branch of the left with partial occlusion of the right and one of thrombosis of the circumflex branch of the left, the electrocardiograms showed no significant abnormalities except those alterations in the deflections of the R wave that are indicative of left ventricular preponderance. It is obvious, therefore, that many cases of coronary artery thrombosis and occlusion may occur without the production of ventricular tachycardia or the detection of those alterations in the T waves that are so frequently encountered after experimental ligation of these arteries in dogs. When these abnormal electrocardiograms are obtained they are undoubtedly a sign of value, but they may be absent in the most characteristic cases.

In conclusion, therefore, I may say that sudden stoppage of the circulation in one or the other coronary artery which is otherwise normal probably leads to immediate or fairly sudden death possibly from fibrillation of the ventricles.

Thrombosis usually but not invariably occurs in arteries that are previously diseased and narrowed by sclerosis.

Occlusion either by thrombosis or sclerosis under these circumstances may be compatible with life for varying periods of time, though death when it comes is usually sudden. In a small group of cases the disease pursues its course as a rapidly progressive cardiac insufficiency without features of particular note. But in the great majority of cases, there are significant symptoms and signs that frequently allow of a fairly accurate diagnosis. Most important of these are pain, often with a particular radiation, the appearance of transient pericardial friction rubs, often associated with the acute onset of myocardial insufficiency and various forms of tachycardia and cardiac arrhythmia, all occurring in an elderly person usually without signs of valvular heart disease. Unfortunately, there does not seem to be any one electrocardiographic sign that occurs in all cases.

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A NEW BACTERICIDAL AGENT FOR USE IN THE CONJUNCTIVAL SAC

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Not quite a year ago a new bactericidal agent called Neo-Silvol was placed in my hands for experimental use. It is a colloidal compound of silver iodide with a soluble gelatin base, the latter preventing coagulation and precipitation of the finely divided silver iodide which is in suspension and not in solution. It is soluble (if colloidal suspension may be called solution) up to 30 per cent., forming a milky-white slightly viscid liquid. This does not turn dark on exposure to air and light and does not stain the skin or linen. However, there is the disadvantage that the solution undergoes a change within a week and must be freshly prepared at least every seven days. In 10 per cent. solution it is not irritating to the conjunctiva. The laboratory reports show that the carbolic acid coefficient is about "5" by the Rideal-Walker method when tested on *bacillus typhosus*, indicating that the germicidal power of Neo-Silvol is five times that of an equal solution of carbolic acid from a purely experimental standpoint.

Clinically, Neo-Silvol in 10 per cent. solution has proven very useful in certain definite types of cases. It was used in 37 cases of acute purulent conjunctivitis with mixed bacterial flora with very satisfactory results. Seven cases of blepharoconjunctivitis yielded with a fair degree of rapidity to the compound. In 3 cases of hordeolum, no appreciable results were found and the use of the drug did not prevent a recurrence of the condition. Three corneal ulcers of low degree were treated with Neo-Silvol, but it could not be seen that the results were superior or more rapidly attained than by other methods. It was used in two cases of purulent dacryo-cystitis, but without noticeable effect.

From these few cases, which it is entirely unnecessary to detail, it would seem that Neo-Silvol is particularly useful in acute purulent inflammations of the conjunctiva of mixed bac-

terial origin. The penetrating power of the drug does not seem to be greater than that of other colloidal silver salts and consequently but few results were obtained where deep penetration into the tissues was necessary. The desired effects seem to be heightened if the drug is used in the following manner: Instill one or two drops of 10 per cent. Neo-Silvol into the conjunctival sac and allow to remain for a minute or two; then flush from the conjunctival sac the muco-fibrinous secretion which has been loosened by the Neo-Silvol (allow the patient to use an eyecup with boric acid or salt solution or any mechanical flush); dry the eye by slight pressure with gauze or cotton, thus pressing out the excess of fluid from the conjunctival sac, and again instill one or two drops of Neo-Silvol. As the solution is somewhat viscid, the patients are apt to comment on the oily nature of the drops; but that is not an undesirable property.

In Neo-Silvol we possess a bactericidal agent for the conjunctiva that has the following advantages over the other colloidal silver salts:

1. It is non-irritating.
2. It is non-staining.
3. It is possibly somewhat more efficient in acute purulent inflammations of the conjunctiva.

The disadvantages may be enumerated as follows:

1. It is not very stable, requiring a fresh solution every seven days.
2. It is somewhat "sticky."
3. The power of penetration is only superficial.

TUMORS OF THE BREAST*

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A study of my cases of tumors of the breast was undertaken on account of the apparent increasing prevalence of cancer and the necessity for a campaign of education, both general and professional. Whether this increasing prevalence is due to more searching methods in diagnosis and greater care in recording statistical data, or whether there is an actual increase of the disease, is of secondary importance. I was anxious to know just how far my own experience over a

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period of several years fell short in the best thought and teaching of today on the subject.

A recent survey, made by the American Red Cross, in the county in which I live, shows the cancer deaths to have already passed those from tuberculosis. Cancer, in my community, now ranks third as a cause of death and tuberculosis has moved down to fifth place. This condition exists in a number of other cities in the United States and probably is more frequent than we think. Wherever a large amount of effective work is being done in the prevention of tuberculosis, cancer will soon outstrip it as a cause of death, without some better organized effort is made to combat it. It is time that the profession should give much greater attention to the question of cancer and the means by which it can be limited or cured. The present efforts in this direction are no credit to the current state of knowledge of this disease. So far as we know at present there are only two means by which the cancer can be limited, or prevented. The first is by prevention of irritation, including chronic inflammation, which in itself is a form of cell irritation, and the prevention of chemical reactions due to animal or vegetable matters gaining access to the cells through irritated areas. The second is by the early removal of all those conditions which are known to lead to the development of cancer; namely, chronic infection, chronic ulceration, pigmented moles, and small tumor growths of various kinds. The "cancer question" is much more a question of "cancer prevention" than has been generally taught.

The surgical prevention of cancer has long been advocated by prominent members of the profession, but we are all frequently astonished at how often we fail to give patients the necessary positive advice which will protect them from the development of cancer. Several fatal fallacies are conspicuous in the handling of these cases. First, most patients suffering with small growths of various kinds are too frequently told by physicians that these things are insignificant and amount to nothing. Third, the physician assumes to be able to make a diagnosis of a benign growth, and advises the patient to watch it carefully and if it begins to show any evidence of malignancy then to have something done. This last piece of advice is the most pernicious that could possibly be given.

After a case has begun to show "signs of

malignancy," the fate of the case as far as effective treatment is concerned is sealed. The study of a few standard authors in both current and book literature is all that should be necessary to convince any painstaking, truthloving physician that his great opportunity as well as his first responsibility is to realize that he cannot distinguish with sufficient certainty between benign and malignant tumors in the breast and that every such growth is potentially cancer and advise his patient accordingly. Any other advice in the present state of our knowledge will continue the remorseless tragedies of this insidious disease.

Cancer. W. J. Mayo. S. G. & Obs. Jan., 1920, P. 23: "Operations for Cancer. The majority of patients come to operation too late to be cured. We cannot always demonstrate inoperability in a given case, and, therefore, operations must be done in many questionable cases to give the patient the benefit of the doubt."

Benign Tumors. Doyen, Vol. II, P. 347: "The smallest and most freely movable adenomas of the mamma, after a longer or shorter period of micrebism, prove the starting-point of the evolution of a rapidly growing cancer." . . . "If the tumor undergoes notable diminution in volume, it is unnecessary to operate and the case should be kept under observation." "Some Mammary adenomata are centers for radiation of neuralgic pains, as in cases of painful subcutaneous fibromata. Those growths are sometimes multiple. In such cases the danger of cancerous transformation is especially menacing."

Tumors of the Breast. Adami, Vol. II, P. 940: "An overwhelming proportion of mammary growths variously estimated by White, Williams, Gross and Senn at from eighty to ninety-five per cent., are carcinomas." . . . "The great preponderance of malignant forms renders it imperative that all mammary growths should be removed early. Even fibroadenoma has been known to give rise to metastases notwithstanding the fact that the histological picture has been that of a non-malignant growth." . . . Pathologists, therefore, speak of "Carcinoma in the guise of adenofibroma." "The breast is one of the most frequent sites for carcinoma; forty per cent. of all carcinomas are found in this region."

Chronic Interstitial Mastitis. Warbasse, Vol. II, P. 474: "This disease is often confused with carcinoma. No treatment except excision is of much avail. On account of the difficulties of differential diagnosis, the indurated area should be exposed by a simple incision; if it presents the appearance of carcinoma, it may be dealt with accordingly; if the disease is inflammatory, the discomfort of the patient and the danger of malignant degeneration will be eliminated by its excision."

Chronic Cystic Mastitis. Warbasse, Vol. II, P. 474: "The surgeon is always confronted with the question

of diagnosis in these cases. If there is no question as to the diagnosis, it would seem that the treatment resolves itself into that of cystic induration. But the problem is a more complicated one. There is usually some question about the diagnosis; and even though the surgeon were satisfied that the disease is nothing more than chronic cystic mastitis, he cannot say how soon malignancy may appear. Indeed it is possible that in some of these cases malignancy has already begun as the primary disease and given rise to the mastitis.

"A report from the Johns Hopkins Clinic shows that if a simple operation is done for the removal of such an indurated mass, an microscopic examination shows that it is carcinoma, the patient may be expected not to live beyond three years, even though a complete secondary operation is done a few days later. . . . If there is doubt the patient should be given the benefit of radical operation. . . . Patients over thirty-six should usually have a radical operation. . . . In women under thirty partial excision of the breast may be done. . . . In women between thirty and forty the whole breast and the underlying fascia of the pectoralis should be removed. . . . In women over forty, the entire gland, the pectoralis muscle and the lymphatics of the breast and axilla should be removed. . . . There should be no half-hearted operation for cancer; nor is it possible to do such a thing as a combined operation for benign and malignant growth at the same time."

Benign Tumors. Warbasse, Vol. II, P. 475-7: "All benign tumors of the breast should be removed. . . . The removal of benign tumors of the breast or the removal of the whole breast for benign tumors is always justifiable because of the facts, that no benign tumor ever becomes more benign, that all such conditions may become malignant, and that malignancy may always be present though undiagnosed."

Carcinoma of Breast. Warbasse, Vol. II, P. 477: "The prevention of carcinoma of the breast can be promoted by (1) preventing and promptly curing mastitis; (2) by removing indurated areas and benign growths; and (3) by preserving the properties of youth in the individual. . . . The cure of carcinoma of the breast depends upon the removal of all the carcinoma. . . . Therefore, the hope of cure rests upon early and complete extirpation of the disease. . . . To employ any other treatment in an operable case is unjustifiable. . . . When we realize that if carcinoma is operated upon as soon as the tumor or induration can be discovered, it is in the great majority of cases absolutely curable. . . . In a few months hope is forever gone. . . . To withhold early operation is to condemn to a wretched and unjustifiable death. To await an absolutely accurate diagnosis is a surgical crime. . . . The early removal of a hundred such tumors is better than to deny one woman deliverance from cancer of the breast. . . . Most cases which come to the surgeon are, alas, too easily diagnosed."

Disease of the Breast. Rodman, P. 254: A care-

ful study of his chapters on benign tumors of the breast show that each one in turn had more or less frequent exceptions, when it was found to be malignant. He sums up the whole situation as regards carcinoma in the following sentence: "I still maintain that surgery should cure one-half of all cases provided that they can be subjected to complete operation early in the course of the disease."

Benign and Malignant Changes in Duct Epithelium of the Breast. Cheatte, *British Journal of Surgery*, January, 1921: Cheatte shows in this article that the nodule in the breast may show only benign tissue and a cancerous development may be found in the ducts at a distance from the nodule. He says, "That breasts which are clinically described as cystic are dangerous. That dangerous cysts are of duct origin."

Benign Tumors—Treatment. Keen, Vol. III, P. 579: As long ago as 1908 W. W. Keen, in his most excellent work on surgery, advised operative treatment of all benign tumors of the breast for the very good reason that a positive differential diagnosis is impossible and a tumor which is now benign may unexpectedly become malignant. He says in part under treatment:

"'Any lump in any woman's breast is better out than in,' is a surgical axiom which applies to benign as well as to malignant conditions. Excision is the safest course to pursue in every instance. . . . In the earliest cases where the growth is small excision of the tumor alone is all that is necessary. When the tumor is larger, has markedly increased in size recently, involving a considerable portion or the whole of the mammary gland, it is advisable to remove the whole of the mammary gland, and in late cases, the pectoralis major muscle."

Malignant Disease of the Breast. Handley, Oxford Surgery, Vol. IV, P. 110: "A carcinoma may originate in the breast and may be present for years without giving rise to a palpable tumor; nevertheless the enlargement of the axillary glands occurs and these cases were formerly described as primary cancer of the axillary glands. . . . If no other primary focus can be found, the breast should be removed on the assumption that a minute carcinoma will be found in it."

"An apparent fibro-adenoma first appearing in a woman over forty years of age is more than likely to prove to be a carcinoma."

Early Diagnosis of Carcinoma of Breast. Index of Differential Diagnosis, P. 745. By George E. Gask, Assistant Surgeon, St. Bartholomew's Hospital: "Usually the patient feels no pain, but discovers a lump in the breast accidentally during ablutions; therefore, its duration must generally be a matter of doubt. Clinically it is felt as a small tumor which unless the patient is very fat can be palpated easily with the flat of the hand. Its chief characteristic is that its outline is not sharply defined and it is hard—stony hard. In the very early stage, the tumor is freely movable over the pectoral muscles and under the skin, but it is not so movable in the breast substance as is a fibro-adenoma." The author goes on with a clear

description of the processes which take place to bring about dimpling, puckering, retraction of the nipple, atrophy of the gland in some cases or enlargement of the breast in others, involvement of the glands, blood stained discharge from the nipple, etc., and then continues: "The difficulties in diagnosis are great and the sources of error are numerous; none of the swellings may be typical; they may be obscured by the obesity of the patient and a blind swelling may be so as to simulate a solid one. . . . Seeing the vital importance of avoiding mistakes in this connection, and recognizing the extent of human fallacy, there is a growing feeling among surgeons that all tumors of the breast, whatever the belief as to their character should be removed."

Tumors of the Breast. Clinical Surgical Diagnosis Do, P. 224-6: This author goes into an elaborate description of examination to show the differential diagnosis "between innocence and malignancy is the movability of the tumor in relation to the rest of the breast." . . . "Having decided from the above considerations that the tumor is innocent," etc., he then proceeds to show how to differentiate the various anatomico-pathological groups and then continues: "But unfortunately there are exceptions. A primary cancer occasionally remains quite movable for a long time; but the history is distinctive in such a case. If the tumor has only been present a matter of months it is probably cancer; if for a year or more it is fibro-adenoma. Further fibro-adenomata not rarely undergo cancerous change and this alteration is not signified by any recognizable clinical symptom." Again he says: "It is, however, quite possible for one nodule of an originally innocent fibro-adenoma to become cancerous or cancer may suddenly burst forth in an old harmless fibro-adenoma." The practical working lesson to be drawn from his chapter is that it is impossible to differentiate the benign from the malignant and that a growth which is apparently benign this month may be malignant next or more likely always contained the elements of malignancy.

Neoplasms of the Breast. Eisendrath, Surgical Diag., P. 227: A comparatively recent work on surgical diagnosis by an excellent surgeon (Chicago) of the younger group, devotes a scant four pages to "Neoplasms of the Breast" without a suggestion of the impossibility of arriving at a early diagnosis or the fact that so-called "benign neoplasms" commonly prove malignant. He simply divides all tumors of the breast into two great classes, the "benign" and the "malignant," although any competent diagnostician could readily differentiate between them. Only a careful analysis of his language gives a hint at the doubt in the back of his mind as to the possibility of such differentiation. In describing the chief diagnostic points he uses such expressions as "generally," "as a rule," "apparent," "unusually," "more frequently," "early enlargement in the axilla," "pain as an early and marked symptom," "early cachexia," "cough and dyspnea," etc. There is no attempt to describe an early case, no attempt to differentiate early from late

cases, no reference to microscopical diagnosis, no reference to operative diagnosis and no suggestions that so-called "benign" growths may be or may become "malignant." Such loose methods of description and instruction account for the failure of recent graduates to know anything about the diagnosis and treatment of early cases.

The immediate reason which determined me to bring this subject to your attention was an experience in examining candidates for license to practice medicine in this state. Ever since I have been connected with this department and had charge of the examinations in surgery, I have tried to give the candidates such questions as would test their practical education and training in the making of diagnoses and planning the treatment for surgical cases. I have purposely avoided purely technical and scientific questions.

In the examination for licensure in Medicine held by the Department of Registration and Education of the State of Illinois, in June, 1920, one of my questions was "Describe an early case of cancer of the breast and outline the treatment." The object of the question was to bring out the signs and symptoms which would first present themselves, and arouse suspicion as to the possible presence of cancer, as distinguished from those of a fully developed and typical case and also to test the candidate's knowledge of how to properly advise such a patient in order to secure the best results in accordance with our widely developed belief that whatever we accomplish for these patients must be by early diagnosis and prompt radical treatment.

There were two hundred and forty-three candidates in the class of which two hundred and twenty-one passed and twenty-two failed. Among the Chicago candidates fifty-eight were from Northwestern, thirty-five were from Rush, forty were from the University of Illinois, and forty-seven were from Loyola, so that most of the candidates were 1920 graduates from A grade schools.

The answers to the questions were both a surprise and a disappointment. Not more than ten per cent answered the question in the spirit in which it was asked; the other ninety per cent described a more or less late case and outlined treatment for such. That is to say the descriptions given by the great majority, contained one or more of the following signs or symptoms,

namely: retracted nipple, dimpling over tumor, enlarged axillary glands, ulceration and breaking down of tissue, pain of various degrees and locations, emaciation, and cachexia.

Before I had graded fifty papers it became evident that practically the whole class would fail if I adhered to a strict interpretation of the question. It was perfectly plain that the expected answer to the question was not in accordance with the instruction they had received. I could not find any other explanation which would explain the failure of so large a percentage to understand the question. In justice to the candidates I had to assume that they had been asked to describe a typical case of carcinoma of the breast and mark them on that basis.

After studying the answers carefully it seems plain that teachers of surgery are not in the habit of distinguishing sharply between "early" cases and "typical" or "classical" cases. The fault evidently was not with the students but with the instruction they had received and it was plainly not a fair question notwithstanding the fact that it is one which is widely discussed in present day surgical literature.

If we are to carry on an effective campaign for the prevention and cure of cancer it is evident that our teaching of the fundamental principles to students who are about to become the advisors of those afflicted with the potential or early manifestations of cancer must be more specific so that the student may be impressed with the great importance of early recognition of the potentialities which precede the "typical" disease in order that treatment may be applied at a time when it will be positively effective. Those cases operated on after the appearance of one or more of the completely differentiating signs of cancer leave every surgeon a list of tragedies which a bolder course would have avoided and the student has a right to be carefully advised in the matter.

Following out the latest and best teaching as to the onset and development of cancer in the breast, we are forced to the conclusion that there are no well defined rules of differential clinical diagnosis by which we can decide whether a given tumor is cancer or is not cancer. These facts should be carefully impressed on every medical student as well as upon every practitioner if we are to do the greatest good to the greatest number. If the surgical teacher and clinician feels

that he cannot acknowledge his limitations to this extent he should not assume to teach the treatment of tumors of the breast.

In studying my own cases I find that they naturally group themselves into five classes as far as operative considerations are concerned. First we have those cases of "doubtful diagnosis" which comprise twelve per cent. of the whole group. These were cases in which there was a lump in the breast of uncertain consistency and short duration, in which the history was indefinite, or cases which were prone to disappear and reappear. Most of these were in young women, and to them could be applied the dictum to consider all doubtful cases in women under thirty as "benign." In one case of a young newly married woman the growth entirely disappeared after her first confinement and has not reappeared in three years. Another disappeared after the woman changed the type of corset she had been wearing. This is the only class of cases in which no operation was advised, but all were urged to report once a month for observation. No doubt if all could have been followed to date a number would have developed a definite permanent tumor and would have been finally recommended for operation. While a few of these have been followed for more than five years the majority have failed to continue to report.

The second group comprise those which were "potentially cancer," and constituted nine and one-half per cent. of the cases studied. Each case had a definite nodule in the breast but no other signs or symptoms. In fact with the exception of one case they are the residue of cases with a positive growth in the breast which were advised to have the nodule removed for microscopical examination. The one exception was a congenital case which had begun to increase in size during adolescence and was removed. It was microscopically a benign growth. Five of these cases have not been heard from since the first observation. The other five have been more or less constantly under observation and are well except for the presence of a nodule in the breast which remains a menace to their future.

There is doubt now whether the original advice to have the nodule removed "for microscopical examination" is good. It is probably safer to remove the whole breast, at least, in such cases. Several tragedies would probably have been avoided if this plan could have been uniformly

followed. Recent current literature shows considerable discussion on this question.

The third group is made up for the most part of cases which came under my care before I had access to a regular pathological service and before our records were in as good order as in the more recent cases. Most of them had at the first observation one or more of the signs described by our medical students. None could properly be classed as early cases. The group comprised twenty-eight cases and some kind of an operation was made in twenty-four. There was recurrence in fourteen of the cases, five cases had no recurrence and six are alive and well more than two years, and four more five years after operation. That is, fourteen per cent. may be regarded as cured, while life was prolonged one year in twenty-one per cent., two years in eighteen per cent. and three years in fourteen per cent. We have had no report from twenty-five per cent., since leaving the hospital. It is interesting to note that all the cases which have gone five years without recurrence and are now well had complete primary operations while all cases which had incomplete temporizing operations received little benefit from surgery and succumbed to early recurrence.

The fourth group comprises those in which we had the benefit of microscopical confirmation as to the character of the growth. The group comprised forty-nine cases of which twenty-five had complete primary operation. Among these are included the cases in which a preliminary removal of the nodule was made for microscopical examination but the operation for the removal of breast, fascia, muscles and axillary glands was made at once. Of this group twenty-eight cases have had no recurrence and there were recurrences in fourteen cases. Following operation two are alive and well at the end of one year; two are alive at the end of two years; four at the end of three years; two at the end of four years, and eighteen at the end of five years. Recurrences were as follows: five the first year; two the second year; two the third year and four the fourth year. We have had no report from five cases. Sixty per cent. of the cases in this group are well and thirty-six per cent. are well after five years but only twelve per cent. of the cases which had fully developed classical clinical signs were well at the end of five years. Five cases which had recurrences lived five years or longer. Eighteen per cent. of the cases where the labora-

tory report was negative for any form of cancer, had recurrences. It is desirable to have the microscopists report but while it is an important factor in differential diagnosis it is certainly not the last word. The late John B. Murphy is quoted as saying, "When the clinical history does not correspond with the microscopist's findings then we usually side with the clinical history." My interest in this paper has been to focus your thought on the whole group of abnormal growths in the breast rather than on operative results.

A comparison of the results in the cases which were advised to be operated on whether they accepted the advice or not is quite a different story. The figures just given represent all cases. If we eliminate groups one and five, thirty-six per cent. of my cases are known to be well at the end of five years and fifty-four per cent. are still well one, two, three, four or five years after operation. If we only consider the cases which were actually operated on, and this is the basis of most statistical studies, we find that fifty-one per cent. are well after five years and seventy-eight per cent. are known to be well one, two, three, four or five years after operation. Such statistics as the last given do not tell the whole story of the cancer question. Of course facts and figures from so small a group can only be suggestive and are inadequate for the purpose of conclusions. There were no operative fatalities although one case only survived for two months. This case should not have been operated on. It is a wholesome exercise to study over cases as a group and to pass in review the tragedies which could have been avoided by more prompt and judicious action on the part of both patient and doctor.

The rule of regarding every tumor of the breast in a woman of over thirty years of age as potential cancer and acting accordingly will undoubtedly give far better results at the end of five years than most of us are able to show by elaborate attempts at differential diagnosis. Bloodgood says in this connection: "I have submitted over sixty borderline cases to a number of pathologists and have found that not in a single one has there been a uniform agreement, as to whether the lesion was benign or malignant."

My fifth group comprise the plainly inoperable cases and it would have been far better for my statistics and probably just as well for the

patients if this group had been larger. It only comprises four cases, a number altogether too small when we consider the late stages in which many of these cases seek surgical relief.

In reporting this personal experience with tumors of the breast I cannot claim anything new or original, I have tried to consistently follow what seems to me the logical teaching in the treatment of these cases. Every tumor of the breast has been regarded as a potential cancer, and the patient advised accordingly. This does not mean that I have advised a complete radical operation in every such case until a sufficient study has demonstrated that the growth is permanent, and then only in cases past thirty years of age. I consider it unsafe for any of us to undertake to say from clinical examination that a given permanent tumor in the breast is benign or if so will continue benign and not a menace to the patient. Even macroscopical and microscopical examinations of the excised growth is subject to a wide range of error. That every tumor of the breast has potentialities for the greatest possible harm is the safest view for the patient and the only one which will prevent the surgeon from making numerous and serious mistakes. Our first and greatest effort should be to prevent the development of cancer. Until the experience I had a year ago regarding the instruction of medical students in this subject, I was not aware of the widespread tendency to only teach medical students the diagnosis and treatment of the typical cases of cancer of the breast. Just how teachers manage to adhere strictly to the typical cases in the clinic is difficult to understand. Perhaps the potential and borderline cases are not demonstrated in the student clinic. I recall a published clinical lecture on this subject by one of our prominent surgical teachers in which we were all taken rather severely to task for so frequently removing perfectly benign tumors of the breast. The answers given by his students would indicate that this view is still taught to his students. In the light of pathological investigations and widespread clinical experience this group is absolutely untenable. A careful study of surgical and pathological literature should convince one that the time for most effective action is long past before a classical clinical diagnosis can be made, and our students should be so taught.

I have not been surprised that many general practitioners find it difficult to think in surgical terms in advising patients regarding tumors of the breast, and seek to regard all such tumors as benign until the clinical picture of cancer is well developed thus depriving many patients of the opportunity of a permanently successful operation. It has been a great surprise to find some of our leading surgical teachers are still teaching such pernicious doctrine, and allowing students to graduate and go forth to practice without being carefully instructed in the differences and the relationship between the early and the classical cases and the potentiality for harm of all tumors of the breast. I recognize the fact that the teacher should exercise great care in so teaching his subjects that the newly made doctor will not at once launch a campaign of indiscriminate operating. We should all deplore the fact that too many operations are based on ill advised diagnosis. On the other hand the student should be carefully taught that the only tumors which it is safe to leave in the breast are those indefinite growths usually found in women under thirty which are reported to come and go and in which no definite characteristics have yet developed, and that even these must be kept under observation until they either disappear or they have been removed. All such growths removed should be subject to a scrutinizing pathological examination, but it must be remembered that even then a respectable percentage of those reported as benign will have recurrences. This is not a criticism of the laboratory but a fact which can not be avoided and which should put every surgeon on his guard. The case should not be considered ended with the removal of the nodule.

In conclusion I would urge upon each one the duty of thoroughly studying the various means of cancer prevention. We should abandon the altogether too prevalent, hopeless view of this disease and enter earnestly and enthusiastically on a campaign of prevention. By spreading the doctrine of early examination of all lumps, nodules and indurations and the application of the principle of radical early removal the incidence of cancer can be greatly diminished.

SUMMARY

1. It is frequently impossible to distinguish clinically between benign and malignant neoplasms of the breast.

2. The microscope is not an infallible guide in determining malignancy of neoplasms of the breast.

3. All nodules and indurations in the breast which cannot be positively determined to be benign are potentially cancer and should be removed. In patients under thirty the potentially cancerous neoplasm alone may be removed; in women between thirty and forty the breast and fascia should be included in the removal; and in women over forty the breast, fascia, muscles and glands in the axilla, should be removed and the nodule at least examined microscopically.

4. Only by early radical removal of potential cancerous neoplasms and indurations can the incidence of typical cancer of the breast be decreased.

5. No neoplasm or induration of the breast should be dismissed from frequent observation until it either disappears or is removed.

6. All cases having nodules and indurations which arouse suspicion of being cancer should have immediate radical operation.

DISCUSSION

(Abstract)

Dr. Carl B. Davis, Chicago, thought that those who are doing surgery should use every effort not only to impress upon the medical profession, but also upon the public, the necessity for early operation in cancer, and would emphasize two or three points in Doctor Black's paper: The first is that we should explore these breasts. Time and time again patients come to us with the history that they have been to see a doctor who said, "It is nothing, come back again." The patient goes on with a false sense of protection because the doctor says it does not amount to much and after six months they come back and it is "You must hurry to the surgeon—it is too late." Every tumor should be explored. Wherever you are in doubt as to the diagnosis of any gross tumor in the breast, resect the breast. No man has a right to do surgery of the breast if he cannot tell in the majority of cases from the gross appearance what kind of a tumor it is. Of course, there are some cases in which he cannot make a diagnosis. Frozen sections are ideal, but not available in all operating rooms.

The second point is that if a tumor is cut across and found malignant, one should resect the breast at once. If we wait twenty-four or forty-eight hours and then operate we have done that patient harm, because even in that short time metastases may have taken place. We have all seen patients come back in three years with a pathological picture and x-ray examination shows that the whole bony system is full of metastases.

Dr. C. G. Pool, Compton, said he lived in a community where operative work on cancer of the breast

has been universally unsuccessful and attended with a very high mortality, though his own mother had a carcinoma removed from the breast and the diagnosis confirmed from the section some thirty years ago and she is alive and well today.

Said he had been removing carcinomas and benign tumors with as much tissue as possible, supplementing the operation by treatment with x-ray or radium no matter whether the report from the laboratory is carcinoma or not. Believes patients should return at fixed dates.

Dr. G. S. Edmondson, Clinton, reported an apparently inoperable, hard, scirrhous cancer of the breast. Later, four years ago, he operated and took out everything in the axilla and in the chest wall and almost denuded the ribs, leaving the wound wide open and making no effort to transplant skin. It took four to six months for the breast to granulate over. In about two years the patient had two or three nodules on the ribs which he removed. The last three months she has been coming back with what appears to be a sort of a metastasis in the lung. The x-ray shows a great deal of increased hardness in the lung. She also has two nodules in the chest wall. He expects to treat them once a week for about eight treatments with the x-ray. She had a persistent cough which has disappeared under the treatment and the nodules have disappeared. She looks as though she might live about four years more.

He wished to emphasize the value of the x-ray, not only in cancer of the breast but in other places as well, considering it about as good as radium.

Dr. Carl Black, Jacksonville (closing): All of my later cases have been rayed prior to operation and the scar has been rayed after operation. I think it is only fair to give the x-ray some credit in connection with the far better results which our recent cases have shown.

Now as to the removal of a nodule for microscopic examination, I want to say a word that was not in the paper. The report from Johns Hopkins Hospital shows that in cases where the nodule was removed and sent to the laboratory for examination and reported as carcinoma, notwithstanding that the whole breast and axillary glands were removed within two or three days following, not one of the cases lived beyond three years. It is a very important lesson as to what may happen if we remove the nodule for microscopic examination. Altogether the better procedure is to remove the nodule and have an immediate microscopic examination made before the operation is completed. If the pathologist does not report the nodule positively benign, then the operation should be completed.

Dr. J. L. Wiggins: Does that apply to the scirrhous type?

Dr. Black: It applies to every type. In the January number of the *British Journal of Surgery*, cheetle says that a nodule in the breast may show only benign tissue even when cut in serial sections and yet a cancer may develop from it; in other words, the nodule simply

furnishes an irritation which may give rise to carcinoma of the breast. He says that breasts which are clinically described as cystic are dangerous and that these cysts are of duct origin, that is, what we have been in the habit of calling cysts are, according to Cheetle's views, dilated ducts.

One other point regarding the recurrence of cancer in the other breast, my own experience is limited to two cases out of 104 which had recurrences in the other breast.

Another point that I think is the most important of all. I urge every breast tumor case to report once a month for examination until the nodule disappears or has become sufficiently definite to justify operation.

CHRONIC INTESTINAL STASIS*

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PONTIAC, ILL.

Intestinal putrefaction, or intestinal stasis as it is more commonly called, may be defined in general terms as that condition in the body resulting from a poisoning of the system by a retention of the contents of the intestinal canal for a longer time than can be taken care of normally. This condition is in no way synonymous with constipation as is often erroneously believed. The gastro-intestinal canal is a cylinder with normal twists, turns and constrictions, the functions of which are digestion, absorption and excretion. When the canal is mechanically so changed as to retain the material that should be excreted, and there is more absorption than can be taken care of by the body, the secretion and poison are forced into the intestinal tissues and typical symptoms of intestinal stasis are produced.

There may be kinkings, narrowings and constrictive bands in any part of this canal, and these may be divided, for convenience, into three distinct types:

1. Congenital constriction of the wall, as in pyloric stenosis seen in the new born.
2. Ulcerative or inflammatory process of the wall, followed by constrictions during the act of healing.
3. Bands and adhesions, which may be subdivided into three groups:

(a) Congenital. We know that months before birth, the abdomen of the fetus practically

is filled with adhesions, which normally melt away in the developing process. However, in some cases there are developing defects, and the result is a congenitally abnormal abdomen, whose content does not act normally. These cases ultimately suffer from intestinal stasis.

(b) Inflammatory. These cases are so common that I need not take time to describe them.

(c) Evolutionary. These bands develop as a physiological response to a mechanical demand for anchorage and support. A good illustration of this is found in the change in structure of the cervical vertebrae in the case of the cobbler whose head, year after year, moves in unison with his hand. In the gastro-intestinal tract, pull on various organs as a result of the prolapse of the abdominal viscera, causes a condensation of the tissue, followed by a marked thickening of the peritoneum, and later by the formation of strong bands. Several types of bands may be found in a single case, but this is not the rule.

For years such conditions may not sufficiently retard the passage of feces to affect the health of the patient, but eventually, if the bands cause a tightening of the gut, there is a retention of the material that should be excreted, and the patient suffers with intestinal toxemia. In typical cases the following conditions become evident:—nodules in the breasts, abdominal discomfort, coated tongue, frontal headaches, loss of strength, constipation, despondency, cold, clammy hands and feet.

The work of Metchnikoff of Paris, Lane and Waugh of London, and Bainbridge and Meeker in our own country, has proved that one of the fundamental causes of disease is a pathologic gastro-intestinal canal.

We can spend an entire day in a consideration of certain phases of this vast subject, but I will summarize a few practical points which may lead to an interesting discussion.

1. A very large proportion, in fact nearly all cases of chronic intestinal stasis, if taken in time, can be successfully treated by dietetic and mechanical non-surgical means. Bainbridge classes these as of the first, or medical group.

2. An appendix, which may be the seat of chronic adhesions causing an obstruction at the terminal ileum, or a band at the base of the gall bladder causing a twisting at its outlet, thus retarding the normal flow of the bile into the

*Read before Livingston County Medical Society, November 4, 1920

common duct, are conditions which can be relieved by simple operations. In the latter condition, the symptoms are typical of gall stones or gall bladder inflammation, and the nomenclature of pseudo-cholecystitis or pseudo-cholelithiasis was ascribed to these cases some years ago by Bainbridge.

3. Chronic intestinal stasis is in no wise synonymous with constipation. However, constipation usually is present, although many patients have diarrhea with very severe symptoms.

4. The writer assisted Bainbridge at two hundred and eighty-four (284) operations (with no fatalities) for chronic intestinal stasis. Surgery was resorted to only after all medical and dietetic treatment had failed. In all these cases post-operative medical treatment was instituted, along the line of that given to Group 1. The operation is a difficult but not a serious one, and except in rare cases it is not necessary to remove any viscera.

5. A careful study of a few cases of chronic intestinal stasis will convince the most skeptical of the importance of relieving the causative factors.

6. There is not sufficient time today to enter into a discussion of the effect of intestinal toxemia upon the endocrines and other glands of the body. This is a new field and one well worth our earnest study. It is wise to bear constantly in mind that the human body is a house which needs an adequate, well-working plumbing system if it is to keep in good order and give satisfaction and enjoyment for many years.

DISLOCATIONS AND FRACTURE-DISLOCATIONS OCCURRING AT THE ACROMIO-CLAVICULAR ARTICULATION*

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CHICAGO

The frequency of these dislocations and fracture dislocations with their attendant difficulties of management prompts me to present this paper to the society.

In discussing these cases with men who do considerable casualty work, I find that they, too, have been impressed by the difficulties encountered in getting good results in the severe types.

I believe it would be well to first consider the anatomical peculiarities of the acromio-clavicular joint. This joint belongs to the group of arthro-dial diathroses, that is, it has the following characteristics: (a) movement (principally gliding of opposed surfaces) which is rather limited; (b) the uniting structures consist of a series of retaining ligaments; (c) a very small joint cavity limited by the capsular ligaments; (d) a constant synovial membrane; (e) hyaline cartilage covering the surfaces of the opposed bones.

The ligaments which surround the acromio-clavicular joint form a complete capsule with rather stronger fasciculi above and below the joint which are named the superior and inferior acromio-clavicular ligaments. An incomplete wedge shaped meniscus is attached to the joint capsule and may divide the synovial membrane.* The movements of this joint are limited by the capsular ligaments and the conoid and trapezoid ligaments. These two latter ligaments; the conoid situated internal and slightly behind the trapezoid, which attaches itself to the upper surface of the posterior half to the trapezoid ridge on the under surface of the acromial end of the clavicle; set a limit upon the movements of the scapula at the acromio-clavicular joint. The trapezoid especially prevents the acromion process of the scapula from being carried inward below the outer end of the clavicle, which is the most frequent deformity associated with the injuries under discussion.

Etiology and Mechanism: These dislocations and fractures are most common in middle life, especially in laborers. True simple dislocations are most common in the younger individuals, while the fracture-dislocations, as would be expected, are mostly in older individuals.

The fractures are usually of the tearing variety due to the ligamentous attachments carrying with them fragments of bone at the points of their insertions. The violence is usually directly applied to the outer end of the scapula either by a fall or blow. Rarely is the violence indirect as by muscular exertion.

Pathology: Subluxations are comparatively frequent. The capsular ligament is torn and slight displacement occurs.

Complete luxations are very distressing accidents and are associated with marked and typical shoulder deformities (Fig. 2). Here the capsular ligament is torn across and the acromion

*Read before the Chicago Medical Society, Jan. 25, 1922.

process of the scapula inserts itself beneath the outer end of the scapula, by reason of the fact that the trapezoid ligament is torn loose from the trapezoid ridge of the clavicle. The joint meniscus is carried along with one or the other joint surface and may insinuate itself between the bones rendering reduction very difficult. Likewise the torn ligament ends may curl back into the joint, making complete reduction impossible, the difficulties here reminding one of a fractured patella.

In fracture-dislocations we have the same clinical picture as far as deformity is concerned, and in addition we have fragments of either the clavicle or the scapula attached to the torn ligaments. These fragments are often small and escape notice in casual x-ray examination, yet they are often very troublesome so far as treatment is concerned. The more marked fractures present little in addition to the greater signs of local trauma. Compound fractures are uncommon in this group.

Injury to the brachial plexus as a result of stretching with consequent paresis or paralysis has been a troublesome complication in some of these cases.

Signs and Symptoms: The patient usually gives a history of having fallen or having been struck on the shoulder. Pain and partial loss of function are complained of. It is especially hard for these patients to lift a weight from the floor.

The deformity is quite characteristic and is produced by the outer end of the clavicle riding above the acromion process of scapula. The shoulder of the affected side droops. In the fracture cases crepitus can often be elicited.

Treatment: Subluxations give little cause for anxiety except when they are complicated by other lesions. A Sayre or Stimson "Figure 8" dressing with a firm pad over the acromio-clavicular joint will give very good results with little discomfort to the wearer. Bevan recommends a molded felt splint applied to the forearm and a Martin bandage passing under the flexed arm over the shoulder with a pad over the site of dislocation. A sling supports the elbow and forearm. (Fig. 1. This illustration was taken from Dr. Gatewood's article in the *Chicago Clinics*.)

In luxation or complete dislocation difficulties are met, in first securing proper reduction, and

secondly in maintaining reduction after it has been accomplished. The same is true to even a greater degree in the fracture-dislocations.

The accessibility of the acromio-clavicular joint coupled with the comparative freedom from serious consequences following infection seem to favor operative intervention in those cases wherein complete reduction cannot be maintained by retention appliances.

A number of methods have been employed with variable degrees of success in these cases. I consider it worth while to discuss briefly a few of these methods.

1. The Parham-Martin band has the following disadvantages: (a) the opening in the two fragments must be of considerable size to admit the band; (b) the large size of the band for such frail structures; (c) tightening the band is likely

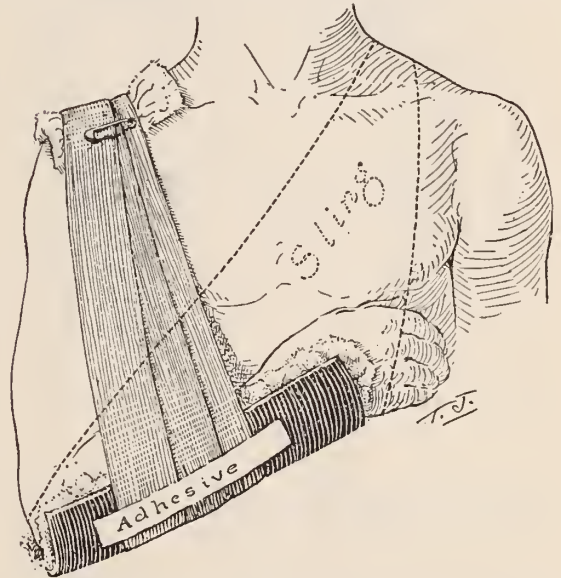


Fig. 1. Dislocation reduced and immobilization attempted by means of the molded felt splint, Martin bandage, and sling.

to produce splitting of bones; (d) removal of band requires considerable exposure and operative effort.

2. Ryerson in the *Chicago Clinics* described a very ingenious method of holding the bones in apposition by means of a rolled cord of fascia lata. This method was quite successful in the hands of Dr. Ryerson but has the following disadvantages: it is difficult to secure fascia tightly enough to prevent some slipping of opposed surfaces; the use of such a bulk of matter in this subcutaneous location is questionable in its application.

3. Plating and nailing have both been suggested by different writers but, I believe, can be discarded on the ground that motion would be too greatly inhibited. One must always bear in mind that there is a fairly wide range of motion in the acromio-clavicular joint.

4. Both Kangaroo tendon and Phosphor-bronze wire have been tried but I have convinced myself that they are not as suitable as the piano wire.

5. I have been particularly well pleased with the following technique of wiring which I have used in recent cases:

Incision: A crescentic incision about two and

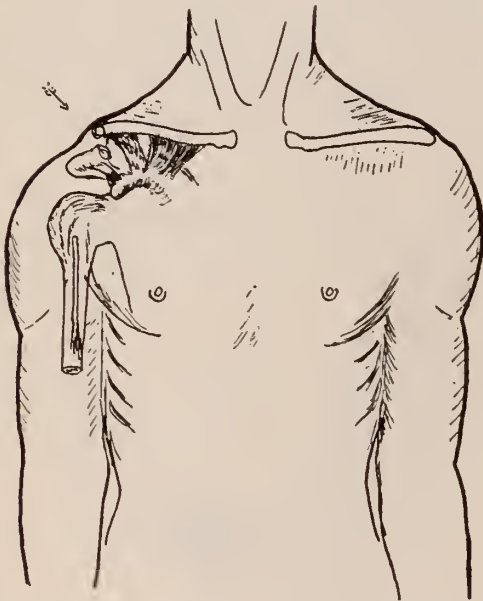


Fig. 2. Arrow indicates characteristic deformity occurring in dislocations and fracture-dislocations at the acromio-clavicular articulation.

one-half inches long placed about one-half inch beyond the outer end of the displaced clavicle. The center of the concavity being opposite the most marked elevation produced by the acromial end of the clavicle. The skin incision is deepened to the capsule of the acromio-clavicular joint. An attempt is made to avoid blunt dissection and hand contact.

Debridement: The joint exposed, all torn tags of the ligaments about the joint are carefully clipped away. The joint meniscus and small fragments of either clavicle or scapula are excised.

Beveling of Clavicle: If difficulty is encountered in retaining the scapula on a level with the clavicle, I bevel the upper surface of the

acromial end of the clavicle so that when the two bones are closely approximated the clavicle prevents the scapula from slipping under its outer end. Fig. 3.

Wiring: Strong piano wire is used. Holes are drilled in the outer end of the clavicle about one half inch apart, and about the same distance from the articular surface of the bone. Two holes are likewise drilled in the acromial end of the scapula. These holes are usually about three-fourths of an inch apart and about the same distance from the articular facet. In tightening the wires it is well to manipulate the arm first to produce good reduction and then gradually tighten the wires alternately. Care should be exercised so that the wires are not twisted until the tension is so great that slight movement causes a snapping of the wires.

Suture of Ligaments: The writer has come to the conclusion from his own observation and the reports of others, that little is to be accomplished by trying to suture either the capsular ligaments or attempting a repair of the conoid or trapezoid ligaments. It suffices, after wiring, to apply three or four interrupted sutures to the ligaments and fascia to cover the joint cavity.

Skin Closure and Dressing: The skin is closed with No. 1 catgut. The use of absorbable skin suture relieves one of the necessity of removing the retention apparatus. It can be readily seen that this is a decided advantage. A small fluff is fixed with adhesive directly over the suture line.

Retention Dressings: A Velpau dressing is applied with the arm flexed and the palm of the injured side near the opposite shoulder.

It is well to thoroughly pad the elbow and the



Fig. 3. Drawing shows manner of beveling clavicle to prevent acromial end of the scapula from slipping beneath the outer end of the clavicle. Insert shows position of wires.

hand, preferably with felt. A very light plaster of paris dressing is placed over the Velpeau dressing. This plaster jacket is a decided advantage since it serves to better immobilize the injured part and, best of all, it prevents the loosening and slipping of the gauze Velpeau, which is very trying where the patients are young and not especially tractable.

After Treatment: At the end of five or six weeks the cast is removed and shoulder examined. If the x-ray is favorable, wires are removed under local anesthesia. If note is made at the time of closing of the skin wound, it is very easy to exactly locate the wires with reference to the skin sutures. No trouble and no pain is experienced in removing these retention wires. One stitch will close the incision used for removing the wires. Light exercise may be immediately instituted.

SUMMARY

1. Dislocations and fracture dislocations at the acromio-clavicular joint are common industrial accidents.
2. Fracture-dislocations are more common than we have been led to believe.
3. Fracture-dislocations present the greatest difficulty in management.
4. From an economic, as well as from a cosmetic standpoint, operation in the difficult cases is followed by very gratifying results.
5. Anatomical relations render this joint favorable for such operative treatment.

ANTERIOR BRANCH OF MIDDLE MENINGEAL ARTERY; ITS ANATOMICAL TUNNEL AND SURGICAL IMPORTANCE*

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The course of the middle meningeal artery (arteria meningea media) is described by Cunningham as "a branch of the internal maxillary artery, which enters the cranium through the foramen spinosum of the sphenoid, and divides upon the deep surface of the great wing of that bone into two large terminal branches. Of these, the anterior branch ascends upon the great wing of the sphenoid, and the anterior inferior angle of the parietal bone, grooving both deeply, whilst the posterior branch turns backwards upon the

squamous portion of the temporal bone. The branches which proceed from these trunks spread out widely and occupy the arborescent grooves on the deep surface of the cranial vault." Gray notes that "sometimes a distinct canal exists for the artery, but it never remains a canal for a long distance," while Sobotta comments that "the commencement of Sulcus Arteriosus is not infrequently converted into a short canal by a bridge of osseous tissue." Various other authors have noted that the anterior branch of the artery runs in bone but most of them consider it as an anomaly. Some of our best anatomies and operative surgeries make no mention of this so-called anomaly. Davis writes as if the middle meningeal artery always runs through a canal in bone in the region of the pterion, during two or three centimeters of its course.

In all the literature reviewed, the consensus of opinion seems to be to call the hole in the bone transmitting the anterior branch of the middle meningeal artery a canal and to consider it as an anomaly.

A canal is defined as "Any tubular and relatively narrow passage or channel." Also "a tube for carrying the fluids of the body." By the word passage we mean "a passing by, through or over." All canals described pass from one anatomical part to another and are not confined to the bony tissue as we have numerous canals of the soft parts. Thus we see that the word canal is not clearly and definitely defined; a duct, an opening or artery is a canal.

The word tunnel is not defined in medical literature but is used in Corti's description of the triangular space in the internal ear—Corti's tunnel, viz., canal of Corti. Tunnel is defined in other dictionaries as a passageway through or under, usually artificially constructed, but there are natural passageways. Tunnels transmit canals, roadways, railroads, etc., and our impression is that they are always enclosed by a solid construction. This hole in bone is a natural one; enters from the inside of the cranium and exits on the inner side of the same, its walls consisting of a solid bony construction, transmitting in the living the middle meningeal artery or the anterior branch of same. I, therefore, propose to call it a tunnel in bone.

By normal we understand "a usual or accepted rule or process." Anomaly is defined as being a "deviation from rule, type or form; anything

*Read before Chicago Medical Society, Oct. 26, 1921.

abnormal." What constitutes a normal skull? Can it be figured by percentages?

Recently, while trephining in the region of the pterion I encountered the anterior branch of the middle meningeal artery running between the inner and outer tables of the skull. I began to examine skulls for this particular tunnel. In eighty-four complete skulls, only 25 per cent. were as described in anatomies, while 75 per cent. contained an anomaly, either a tunnel on both sides in 31 per cent., a tunnel on the right side only in 19 per cent., and a tunnel on the left side only in 25 per cent. In 27 partial skulls examined I found only five free from tunnels, while the remaining 22 contained the tunnel for the artery. The percentage being 19

a few millimeters in each case, measuring in a straight line from entrance to exit. I found that in these measurements there were eight tunnels .3 cm.; nineteen tunnels .5 cm.; thirty-five were 1.0 cm.; ten were 1.5 cm.; twenty-six were 2.0 cm.; three were 2.5 cm.; four were 3.0 cm.; and four were 4.0 cm.; and one was 5.0 cm. in length. A few of the tunnels were straight passageways, but most of them were curved inside the bony structure, many forming almost right angles and in one case gave off a branch anteriorly while within bone, and this branch made its exit on the inside of the anterior fossa of the cranium.

TABLE 2. SHOWING THE NUMBER AND LENGTH OF TUNNELS DESCRIBED.

Length, cm.	.3	.5	1.	1.5	2.	2.5	3.	4.	5.
Number	8	19	35	10	26	3	4	4	1
Percent	7.2	17.2	31.8	9.0	23.6	2.7	3.6	3.6	.9

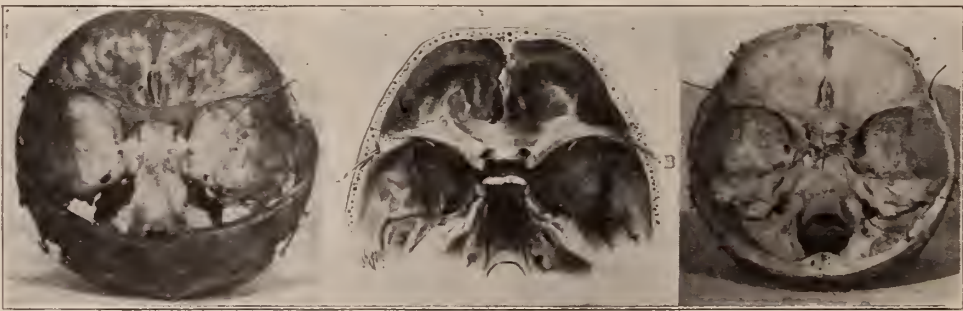


PLATE No. 1

- Fig. 1. Photograph of skull showing the anterior branch of the middle meningeal artery on the left side running in a groove, while on the right side it passes through a short tunnel in bone.
Fig. 2. Drawing from specimen showing bilateral tunnels over 2 cm. in length.
Fig. 3. Photograph showing long bilateral tunnels, the exits not shown, as they are on the top of skull, which is removed.

to 81. In the skulls examined I found a total of 110 tunnels in 195 sides, 56.4 per cent.

TABLE 1. SHOWING NUMBER OF SKULLS EXAMINED TOGETHER WITH PERCENTAGE IN EACH CLASS

Total Examined	As Described	Tunnel, Both Sides	Tunnel, Right Side	Tunnel, Left Side	Abnormal	Tunnel, Both Sides	Tunnel, Right Side	Tunnel, Left Side
Full Skulls—								
No. 84	21	26	16	21	63	26	16	21
Pct. ....100	25	31	19	25	75	41	25	33
Full Skulls Considered as Partial Skulls—								
No. ....168	79	..	42	47	89	..	42	47
Pct. ....100	47	..	25	28	53	..	47	53
Partial Skulls Examined—								
No. 27	5	..	11	11	22	..	11	11
Pct. ....100	19	..	40	40	81	..	50	50
84 full skulls, sides.....								168
27 partial skulls, sides.....								27
Total number of sides.....								195
Total number of tunnels.....								110
Percentage tunnels present.....								56.4

The length of the tunnels varied from .3 cm. to 5.0 cm. The measurements taken were not absolutely accurate, always giving the tunnel the advantage, so the length as given is shorter by

The measurements taken in a straight line from point of entrance to exit of vessel from bone do not give the true length of the tunnel. The degree of curve within the bone is variable. This curve necessarily increases the length of the tunnel. The point of entrance to tunnel may be on the great wing of sphenoid; under surface of the lesser wing of sphenoid or at the anterior inferior angle of the parietal bone; but the point of exit is invariably from the parietal bone in a line with the usual description of the course of the anterior branch of the middle meningeal artery which is so accurately described by authors of cranio-cerebral topography. I also noted that if the posterior branch was given off well anteriorly on the great wing of the sphenoid, the anterior branch tunneled bone.

Surgical Importance: Fracture of the middle fossa will usually cause extradural hemorrhage from this artery, but in any violence which does not cause a fracture we sometimes have a hemor-

rhage by contrecoup. This is especially likely where there is a tunnel present, because the sharp edges of its entrance and exit are important factors. Certainly, if a fracture involves a tunnel, there is hemorrhage. Focal symptoms for hemorrhage and indications for surgical treatment are well defined.

By using a trephine to expose the artery, it is possible, and more especially so when using a small or medium sized trephine, to raise the

encountered, it is necessary to control hemorrhage, and the entrance and exit of the vessel from the tunnel should be exposed by cutting away the bone.

I do not wish to enter into the differential diagnosis of concussion, cerebral irritation and compression of the brain, but it is easy to conceive how a tunnel in bone in the region of the pterion could be an important factor. As the artery necessarily leaves the dura on entrance

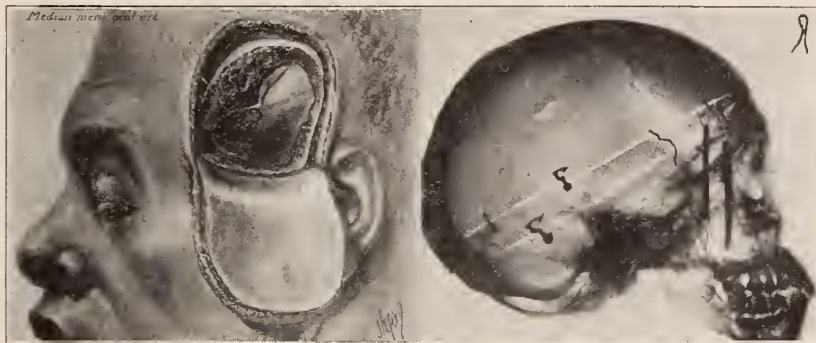


PLATE No. 2

Fig. 1. Drawing from actual specimen showing entrance and exit of vessel within cranium and the curve of the vessel within its bony tunnel. The vessel runs between the inner and outer plates of the skull.

Fig. 2. X-ray photograph of skull showing curved wire within a tunnel its length.

artery in its tunnel in the button of bone removed, in cases where the tunnel is present, and have hemorrhage from the severed artery left within its tunnel in the skull and for this hemorrhage to persist, leaving no sign of a vessel on the dura, leading the operator to believe that he has not located the artery, and the hemorrhage

into the tunnel and rejoins the dura at its exit from bone, even in cases of no hemorrhage following a violence, there may be considerable irritation of the meninges.

In operations for the removal of the Gasserian ganglion and tumors of the brain low in the middle fossa, and especially in the Hartley-



PLATE No. 3

Button of skull trephined, severing the anterior branch of the middle meningeal artery in its tunnel.

indicated that the diploe was reached. When using Wagner's osteoplastic flap method, one is more than likely to cause hemorrhage from the dural vessels even if the vessels are not in tunnels, but only in deep grooves on the bone. Whatever method is used to expose the vessels and dura in the middle fossa, if a tunnel is

Krause operation, it is exceedingly likely that artery will be torn if a bony tunnel is present, when reflecting the dura from bone.

The x-ray fails to reveal whether a tunnel is present or absent. Its findings in regard to this condition are negative in the pictures taken to demonstrate the presence of tunnels in skulls

known to contain them. The branches of the middle meningeal artery can be clearly defined, however, in skulls by means of the x-ray.

It is not possible to tell whether the patient has a tunnel for the anterior branch or not before operation, but in view of the facts brought out by examination of skulls available, I believe it plausible to conclude with the following statements:

1. The hole in bone transmitting the anterior branch of the middle meningeal artery is a tunnel.

2. The presence of these tunnels is not an anomaly.

3. The presence of these tunnels cannot be determined by the x-ray.

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DISCUSSION

Dr. C. C. Rogers: This paper of Dr. Rowan is interesting from a surgical standpoint in a number of ways. In the first place, we frequently have cases where there are apparently slight injuries to the head, and in which the X-ray shows no fracture of the skull, and there may be no fracture of the skull. You can readily see that if we have an artery running through bone, as indicated in the illustration, for an inch or an inch and a half or longer, if there is pressure to the side of the head, in young individuals, the artery being fairly well fixed in the canal, the skull bending to a certain extent, the artery can be torn without an actual fracture of the skull. If a fracture of the skull can be demonstrated by an x-ray, the artery is invariably injured; rupture of this artery by a slight fracture or without a fracture at all produces quite a severe hemorrhage. In operating when this vessel is torn, by turning back a plate of skull, we always have quite a hemorrhage which can be easily controlled where we have a canal, because Horsley's wax can be pressed into the canal and the hemorrhage stopped at once. It is not possible to ligate the vessel, but it can be plugged with the Horsley wax. When this vessel is torn there is hemorrhage: no matter where in the tunnel it is torn, the hemorrhage comes from the tunnel into the subperiosteal space. I do not like to call this extradural, because the outer layer of the dura is a part of the periosteum and continues with the periosteum outside of the skull. There is a difference in the outside of the skull and the inside of the skull. The outside of the skull is covered by periosteum except where there is muscle attachment. As there is no attachment of muscles on the inside of the skull, the inside is lined throughout by periosteum (or outer layer of the dura mater), which in early childhood has the function of a true periosteum. Anything that will cause irritation of the dura (or the periosteum) in this region will in young individuals

undoubtedly have a tendency to increase the length of this canal, so that a pachymeningitis (localized tubercular conditions, syphilitic conditions, and so on), irritating the dura, undoubtedly will have a tendency to lengthen this tunnel and make the patient more susceptible to extradural (or subperiosteal) hemorrhage. Hemorrhage taking place on the outside of the dura (in the subperiosteal space) will produce the symptoms of intracranial pressure because the dura periosteum is stripped from the bone and pushed in. In this way the spinal manometer, measuring intracranial pressure, is of great value.

In these cases, however, no blood will be found in the cerebrospinal fluid because the blood is outside of the dura, outside of the periosteum, consequently the symptoms of intracranial pressure are due to subperiosteal lesions, which are entirely different from the symptoms of intracranial pressure due to subdural (intradural) lesions. There will be symptoms of slow respiration, a slow pulse, a subnormal temperature, with an increase of blood pressure and a corresponding increase of cerebrospinal fluid pressure. If it is inside the dura we do not find these symptoms at all. If the patient has these typical symptoms and signs the intracranial pressure is extradural in origin and remains so. If this happens in young individuals the blood clot is frequently absorbed. Sometimes it is not. A calcified process takes place, lime salts are thrown down on the dura, irritate the dura, and we have exostosis at this point (pointing to area on picture); not only at this point, but it can happen at any irritated point within the skull where the periosteal function of the dura mater is not lost.

Some anatomists or physiologists say the periosteal function of the dura mater is retarded about the seventh or eighth year of life, and in the fifteenth or sixteenth year there is no more periosteal function to the dura mater. That may be true in certain cases, but in many cases the periosteal function of the dura mater, the outer layer of the dura mater is never lost. The cases having extradural hemorrhage (subperiosteal hemorrhage) may have a deposit of lime salts, with thickening of the dura mater, and a thickening of the skull at that point which causes permanent intracranial pressure, because the cranial cavity is just large enough to hold the brain and its coverings and normal contents, and anything added like a blood clot or a deposit of lime salts will cause trouble.

The continued localized severe headaches patients complain of who have had slight injuries, and not large but small blood clots, with the deposit of lime salts, are due to irritation of the dura at the point of the calcareous deposit, irrespective of what some authors say that the dura mater is not a sensitive structure. It is one of the most sensitive structures in the body. It is supplied by the fifth nerve, which is one of the most sensitive nerves, and consequently any irritation from deposits in this

location (pointing), or any other location, will produce severe localized headache, provided the periosteal function of the dura mater is still present, causing a thickening of the skull or the dura mater. I do not believe these deposits of lime salts and thickening of the dura mater and the skull take place in elderly people where the periosteal function is lost. It depends on the condition of the periosteum that produces the thickening of the skull. It determines whether the bone should be replaced after once removed or left out. If left out, a one layer skull will be formed. Many skulls may have large pieces of bone taken out, and if you throw the bone away, leave the periosteum normal, a new one layer of skull will reform which will give the patient what protection to the brain is needed.

I wish to thank Dr. Rowan personally for describing the length of this canal, because most anatomists claim it is only one or two centimeters in length. He has found it much longer through the bone when you take the course into consideration. It is a tunnel, because it is covered by bone all the way through, and, inasmuch as Dr. Rowan is the first to call our attention to this, we should, I believe, call it Rowan's tunnel.

Dr. H. E. Santee: It would be useless to recapitulate the surgical and anatomical features so completely given by the essayist and Dr. Rogers, so I shall not do it.

As I was listening to Dr. Rowan I was thinking of the real discovery he has made. Of course, many anatomists note that the sulcus arteriosus is frequently a canal at the beginning, meaning a tube at the beginning, on the parietal bone. So far as I know, no anatomist mentions its being tubular on the temporal bone, but on the inferior and anterior angle of the parietal it is frequently a canal for a short distance. Quain, Piersol, Sobotta-McMurrich, Spalteholz and a number of other anatomists mentioned by Dr. Rowan speak of this. The point Dr. Rowan has discovered is the frequency of its presence. I have seen it in hundreds of skulls I have examined, but never saw it often enough to suspect that it is the rule, not the exception. Judging by the evidence at hand, Dr. Rowan has discovered that it is the rule, and not the exception.

To make such a discovery a great many statistics must be brought together; unless an enormous number are collected the conclusion is likely not to be correct.

I think it was our most famous humorist who pointed out the danger of depending on statistics. While his language is a little rough, if I remember rightly he said, "We have liars, damn liars and statistics." That simply points out a real fact, that unless statistics are very numerous and are collected from wide sources they cannot be depended on.

The fact that in these 195 lateral halves of the skull, examined by Dr. Rowan, we find this canal or tunnel in about 56 per cent. of cases is suggestive

that its presence may be the rule. The real contribution is the fact that Dr. Rowan has called our attention to the tunnel, and surgeons will be on the lookout for it in the future. Thus we shall have statistics enough to prove positively whether the tunnel is the rule or the exception, but it will take some time to establish that. Dr. Rowan is to be congratulated that he had the perception to notice this apparent anomaly and curiosity enough to follow it up and to determine the facts as far as he was able.

He has contributed two important things to medical progress. First of all, the extra precaution of the surgeon who is going to operate on the side of the head in the equatorial zone; he will be on the lookout for this tunnel. In the second place, he has brought forward evidence that will be considered by every surgeon and will cause them and others to accumulate sufficient statistics to really determine the character of the canal. Further than that I do not care to speak. On these two things we congratulate Dr. Rowan—first, giving us a real precaution for the surgeon, and, second, a mass of evidence, conclusive so far as it goes, which will be a stimulus to further investigation and the final determination of the normal condition.

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X-RAY TREATMENT OF CARCINOMA OF THE BREAST*

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CEDAR RAPIDS, IOWA

Cancer of the breast, if neglected, is invariably a fatal disease. Realizing this fact, we very properly employ extreme measures for its relief. We do not hesitate to submit these patients to an operation involving some pain, discomfort and danger to life. Is it not also justifiable in these cases to employ in addition to surgery a method of intensive radiation, attended by a considerable degree of discomfort and even a definite, though small mortality rate? The answer

*Read before the Tri-State District Medical Society, Milwaukee, Wis., Nov. 14, 1921.

depends upon whether or not the results warrant the risk.

The widespread use of x-rays in the treatment of malignant growths of the breast for the last twenty-five years has shown that they have a place in therapy sufficiently definite to indicate their employment in every case. The early results from the method of intensive homogeneous radiation of the whole chest as developed in the last few years are more encouraging.

At the present time we can reasonably expect from ordinary intensive radiation of breast cancer:

1. An increase of at least twenty-five per cent in the number of patients alive five years after operation.
2. Prevention of breaking down and ulceration of the tumor, with its attendant pain, foul odor, and mental anguish. (I have seen only one inoperable case break down under x-ray treatment.)
3. Destruction of superficial metastases.
4. Prolongation of comfortable life.
5. An easy death from distant metastases or inter-current disease.

Since the object of both the surgeon and the radio-therapist is to cure as many cases as possible and to prolong the period of comfortable life for those doomed to die, the problems of one are of intense interest to the other. It is perhaps permissible then for an x-ray specialist to discuss the question of operability. From a surgical viewpoint, operability of a breast cancer depends upon the possibility of removing the primary growth and all metastases. Radio-therapists at present are divided into two widely divergent groups on the question of operability. One group under the leadership of German clinicians believes that the presence of metastases renders any cancer inoperable and that such cases are best treated by x-rays and radium. The second view is that the intensive use of x-rays has greatly widened the field of operability, and that whenever the primary tumor can be removed with a reasonable expectation that the skin will close, the operation should be performed. My own opinion is that the latter view is the correct one because of the established fact that primary cancer is much more resistant to the action of radiation than are secondary growths. It is, of course, obvious that palpable supra-clavicular

glands, or x-ray evidence of the presence of mediastinal metastases, render useless any operation except simple excision of the primary growth. If intensive radiation is available, and it should be available wherever operations are performed for the relief of cancer, I believe that little is gained by surgical invasion of the axilla, and that these patients will have a longer and more comfortable life if the primary tumor only be excised and x-rays be depended upon to control the axillary, supra-clavicular, and mediastinal extensions. I offer the following points to support this belief:

1. It is not always possible to differentiate between inflammatory enlargement of the glands and carcinomatous involvement.
2. The most careful and expert block dissection will often fail to remove all the glandular tissues from the axilla.
3. If any cancer cells be left, it is evident that no good is accomplished, and actual harm may be done by opening up fresh avenues for extension, and stimulating the production of recurrences.
4. Whether or not an attempt to remove the glands is made, a full lethal dose of x-rays must be given in any case to the entire axilla and chest.
5. Complete removal of axillary extensions is too rare an accomplishment to compensate for the additional suffering from neuritis, edema, and loss of function which results from the average routine block dissection.
6. A conservative plan of treatment will reduce the immediate operative mortality and tend to remove the fear of crippling operation from the minds of the laity, and induce them to submit to operation earlier in the course of their disease.

The prognosis in any case of breast cancer depends much more upon the time of operation—that is, before or after metastases occurs—than it does upon the skill of the surgeon, the choice of the operation, or the type of the tumor. Theoretically, practically all patients should be cured who submit to operation while the growth is a local one. On the other hand, after dissemination of cancer cells takes place, the number of patients who can be cured by surgery is exceedingly small—less than twenty per cent—and our efforts in this stage must be mainly directed

toward prolongation of the period of comfortable life.

Inasmuch as the presence and extent of metastases cannot always be definitely known, it seems proper to assume that they may be present in any part of the chest in any case. It follows, then, that routine post operative x-ray treatment should be the same in all cases, regardless of the stage, type, and extent of the disease, and that it should consist of a rational endeavor to deliver to every part of the chest a dose of x-rays large enough at least to inhibit the growth of cancer cells. The attainment of such an endeavor has been made possible by increasing the focus-skin distance, size of fields treated, filtration, and voltage. The following brief description of the technique in use in my own office will give some idea of the factor changes that have been necessary in the development of the modern method of treatment. The shape of the half chest, roughly a quarter of a sphere, lends itself admirably to attack in four directions, and therefore the tube is so placed that the rays fall from the front, back, side, and over the shoulder. The tube is removed to a distance just great enough to permit the entire surface to be treated at one time. Trial shows this distance to be sixteen inches, which will evenly radiate a circle ten inches in diameter. The filter is the copper equivalent of ten millimeters of aluminum. The voltage is 100,000 R. M. S., or 140,000 peak, if measured by the German method. Five milliamperes of current are allowed to pass through the tube. Experimental measurements with the ionization chamber show that the use of these factors permits nearly homogeneous radiation of the chest, or more simply expressed, the sum of the four depth doses is equal to the dose received by any portion of the skin. The early results in the treatment of inoperable and recurrent cases by the newer technique are decidedly encouraging and are so far superior to anything I have previously observed, as amply to repay for the large amount of time consumed in treatment. It is, of course, too early to speak of percentages or final results.

The question as to whether or not an attempt should be made to administer a lethal dose to the whole cancer at one sitting, is as yet undecided. It is evident that flooding the chest with such a tremendous amount of radiation at one time will produce such a profound constitutional

reaction, that we should have to be prepared to accept a definite mortality rate from the treatment alone.

Finally, the x-ray therapist must remember that he is dealing with a powerful agent, capable of producing harm as well as good. He must remember that insufficient treatment of cancer cases takes away the only chance these patients have for life. Realizing the deadliness of the disease, he must be willing to submit his patients to considerable discomfort, and he must not fear burns of the skin, or even a few deaths. In order to attain the highest degree of success, and to realize the hopes inspired by recent developments in this art, a certain degree of courage is as essential as a mastery of technical details.

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THE MEDICAL ASPECTS OF MALNUTRITION IN CHILDREN *

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The medical profession has always been keenly alive to malnutrition in infants. Since the war the parents have been more alive to malnutrition of the older children, and have more frequently made demands upon the medical profession for something to be done for the malnutrition of the older children. The doctor recognizes that he is dealing with a subnormal organism; he finds no distinctly organic disease and he notices the pallor of the child. He sometimes says to the mother "feed him up." That has been reported to me by mothers and their bewilderment upon such advice is pitiful to see.

The doctor does not always realize that in homes well organized, with plenty of money and a good diet, there is no rational dietetic regime for the child. The mother herself has passed the day of instinctive motherhood, but we have not fully realized that the day of instinctive eating is past. In the first place, the American mother hasn't control enough of the child to make it eat, and second, the American child has numberless interests and cares less for eating than many other things.

We are using a history sheet that gives some details as to the regime and diet of the child. History sheet appended if you wish to use it.

*Read at the 71st annual meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

The medical profession does not as a whole realize the need of definite record upon such things as the strain upon the modern child.

I have been doing work this year with some high school pupils and I am rather horrified at the strain placed upon the children at the period of most rapid growth, the beginning of the reproductive period and the most trying period of the child's life. If the medical profession will take the time to go into the strain on the modern child they will come to the feeling that this whole problem of nutrition is simply a balance. We are taking out more from the school child in many cases in our present regime than we can give the child in food. Our organization deals only with children that are a certain per cent below weight, an arbitrary standard of 7 per cent.

Many of these ill nourished children show certain things that must be attended to by the medical profession in other ways than by the administration of iron or other tonics. The children are all pale, have dark circles under their eyes, are abnormally sober, and have a very bad posture. I think I had one boy who stood up well, although he was considerably below weight. They all have protruding shoulder blades, they all have wretched, stringy upper arms. You take up the arm and it feels like a broomstick with a dishrag over it. This stringy arm is an accurate index of the lack of a proper height, weight and balance.

These children manifest one of two nervous peculiarities. My hope is to also study nervous balance in up to weight children. One class is apathetic, they do not care, they cry if things do not go their way. These children are not mischievous, bright, alert, as they should be. The larger number of the malnourished children are preternaturally bright, they are worried; if they miss in the spelling lesson the heavens are going to fall; they are so keyed up they frighten me. This class among the malnourished is more numerous than are the apathetic. They hold their shoulders under strain; they seem to have no mainspring. They seem disintegrated nervously. I try to get some co-ordination between the different parts of their body and try to get them into balanced posture. When I get one part straightened there is something else out of posture.

Malnutrition is primarily a medical prob-

lem; it has not always been seen as such. In our work we demand a thorough physical examination of the child before we take any steps in the matter of nutrition. There are certain defects that hold the child back in height and weight relationship, and those are referred to the family doctor without exception. We try to get the correction of these defects. We do not always get the needed co-operation. It is quite important that the doctor should consider the child's weight, height relationship and its relation to defects.

The most important defect is mouth-breathing. I took nineteen mouth-breathers and put them through the regime of rest and diet for months and have come to the conclusion that no mouth-breather can be built up to normal weight until the obstruction is removed. Any focal infection holds them back. While we do not do urinalysis on every case we find the children with albuminuria do not gain. I have found several cases where the mother observed that the child ceased to grow at a certain period and albuminuria was discovered with no other explanation for the sudden check in growth.

I want also to speak of the picky children who do not want to eat, in relation to eye strain, etc. Another defect for which this regime in building up is being used by Smith in New York is heart trouble. He writes me briefly in the matter that his results are encouraging.

With this widespread condition of emaciated and otherwise abnormal children, this large mass of children are with us for reasons that are not yet thoroughly worked out, but so far as I have been able to observe one of the largest factors in causation is the lack of home control. I am sure that every doctor in this audience could bear me out in the statement that it is unbelievable the extent to which the children run the family and the parent. The American child has a hard time running the family and he gets very skinny doing it, says Dr. Emerson.

The child has no consciousness built up which enables him to select his diet. It is the duty of the parent to select the diet and see that the child eats it.

The next factor which seems to stand out is insufficient and wrong diet. A little child of eight, taking second grade work and doing it well, was also studying interpretative dancing

and was giving some exhibitions in the evening. She was fourteen pounds under weight and was receiving 1,000 calories a day which is the amount of food of a year-old child. When you put a child of eight years through our trying school system, giving her dancing and permitting exhibitions, you are taking out of that child's life something needed in the future. It was just a case of semi-starvation plus overstrain.

The last point on the causes of malnutrition is the almost universal presence of overexertion on the part of the child. One girl of about fourteen in the eighth grade, doing heavy work, thirty pounds under weight, she looked as if she would never come to life. Her mother was an ex-teacher and she could not understand why an hour's practice on the violin in addition to this eighth grade work and many social duties had anything to do with the health of the child. She knew so much that I finally laid the proposition before her not exactly in the words of "Madam, take it or leave it," but along those lines, and it was not until the next day that she decided to do something for that child.

Four or five hours' home work, in bed at eleven o'clock, seventy-five steps up to the lunch room, lunching in noise that is unbelievable is very different from the experience of the present-day adults in school. Unless you are closely in touch with the modern child you do not realize the strain of the crowds, movies, extras. In a small town recently there was a movement to teach seventh and eighth grade children Parliamentary Law outside of school hours. Gymnasium, class plays, pageants, drills, I could not tell you all that the modern child is doing, and often on insufficient physical capital and inadequate food.

Second, this is an educational problem. It pays to educate mothers along these lines. We

have been doing educational work with mothers in classes under health nurses and domestic science workers. We have had good service with domestic science people. They are beyond the stage where they trim pot roasts with ealla lilies, which was a former habit of theirs. We were really forced to take domestic science people because of shortage during the war of public health nurses.

To sum up, a program must be arranged for the child that permits his income to exceed his outgo after correction of defects. The classes run by the McCormick fund are instructed in what to eat, how to eat—stimulants are cut out of the diet, milk is added. Extras are cut off till the child is up to weight. Violent exercise is curtailed to some reasonable amount. The child is taught to go to bed early and rest is arranged for during the day.

I wish to speak of the fine work in the way of medical control that has been done in Galesburg. A committee was appointed by the medical society to supervise all child welfare work and that appeals to me as the sane and sound thing to do. Eight men replied to a letter from the Medical Society saying they were interested in work for children. The society then assigned these men in rotation to the supervision of the health center that were established by the women and the Red Cross in Galesburg. Thus there is no chance for any deflection of the patient by any person in charge of the clinic.

In Minnesota another plan was tried. Interested people hired a young man who was interested in children. Every doctor was kicking that center, and justly, I believe. They had no hold on the center that made sure their interest was being conserved. In Galesburg they were sure that no child was getting treatment that could pay.

Child's Name	Inches	Height	Weight	Average Weight	Address	Pounds	Underweight	Date of Birth
Date of 1st Examination	Inches	Height	Weight	Gain in Weight	for Height	Actual	Pounds	for Height
Date of Graduation					Weight			Expected
Dates of Weight Weighing	Gain	Loss	Rest Periods	Lunches	No. Hrs. 2 Sleep	Food Calories	Rapid Eating	Over Fatigue
							Other Facts	Treatment
								Recommended
								Carried Out

FORM FOR HISTORY AND PHYSICAL EXAMINATION

Nutrition Clinics for Delicate Children

HISTORY

INFORMATION REGARDING MEMBERS OF FAMILY

Age if
Name Living Health Defects Give Date, Age and Cause
Father
Mother

Children

- 1
- 2
- 4
- 3
- 5

Use lower spaces for brothers and sisters. Include still-born and miscarriages in order.

INFORMATION REGARDING BIRTH AND INFANCY

Born at full term.....Labor.....Condition at birth.....
 1st Tooth at....mos. Walked at....mos. Spoke at....mos.
 Breast-fed...Bottle...Mixed...Weight at birth.....

PREVIOUS DISEASES WITH DATES

MeaslesOtitis (Earache).....Tonsilitis
 MumpsRheumatismConvulsions
 Scarlet-feverMeningitisChorea
 DiphtheriaPneumoniaOperations
 Whooping-coughBronchitis

GENERAL HEALTH AND HABITS

General Health: Good—fair—poor Frequent colds: Yes—No
 How long underweight.....Date when well and strong.....
 Repeated attacks indigestion without apparent cause.....
 Yes—No
 Habits as to Tea.....Coffee.....Ice water.....
 Candy or sweets between meals...Washing down food...
 Does child take cereals?.....Milk?.....
 Sleep: Mouth open—quiet—restless—snoring.....
 Bowels regular daily..Yes—No..How often laxatives used..
 Average number minutes at meals: Breakfast.....
 lunch.....dinner.....
 Average number hours in 24 spent in bed.....at play.....
 in open air.....at work or study.....

PRESENT SYMPTOMS

PHYSICAL EXAMINATION

Underline each word describing condition

INSPECTION: Bright—dull—nervous—phlegmatic—apathetic
 GENERAL CONDITION: Good—fair—poor Lines under eyes
 MUSCLES: Biceps firm—flabby Posture: Erect—fatigue
 HEAD: Normal.....Bosses prominent.....Pediculi.....
 EYES: Pupils equal—unequal React to light—distance
 Motions: normal—abnormal Vision: Right /20 Left /20
 (Snellen's test)
 NARES: Clear—crusted—mucous discharge—spur—deviated
 septum
 MOUTH: Normal—open.....Cough.....Herpes.....
 Mucous membrane: Normal—pale.....
 TONGUE: Normal—moist—dry—brownish coat.....
 THROAT: Normal—congested—granular—mucous.....
 TONSILS: Normal—large—buried—cryptic—inflamed—absent
 GLANDS: Normal—enlarged; ant-cervical—post-cervical—
 epitrochlear
 TEETH: Good—Number carious.. Approximation. Good—poor
 EARS: Right drum: Normal—dull—retracted—bulging.....
 Cerumen—right
 Left drum: Normal—dull—retracted—bulging.....
 Cerumen—left
 HEART: Area dullness.....cm. left mid-sternal line.....
cm. right mid-sternal line.....
 Apex 4th—5th—6th—space in mid-clavicular line.....
cm. outside mid-clavicular line..
cm. inside mid-clavicular line..
 Action: Regular—irregular....Sound: Clear—impure....
 Murmurs; None.....2d pulm. accentuated.....

soft systolic { apex }
 loud systolic at { pulmonic } tr. to { ant. axillary line
 diastolic { aortic } { mid. axillary line
 { angle of scapula

LUNGS: Resonance good throughout.....Respiration good
 throughout.....D'Espine.....

ABDOMEN: Normal—large—distended—tympanitic—tender

hernia

LIVER: Dullness....space—rib to costal border mid-clavicular
 line

SPLEEN: Felt—not felt.....

GENITALS: Normal..Prepuce: Long—adherent—circumcised

EXTREMITIES: K J.: Present and equal—absent.....

Edema: Present—absent

SKIN: Smooth—rough—clear—scars.....

Vaccination: Present—absent.....

SPINE: Normal—rigid—curvature—round shoulders.....

CHEST: Normal—barrel—flat—funnel—pigeon.....

FEET: Arches: Good—flat.....

URINE: Color..Specific gravity..Reaction..Albumen..Sugar..

TEMPERATURE: ..Weight:.....Pounds Height.....Inches

DIAGNOSIS

SUMMARY OF DEFECTS FOUND

Underweight for Height.....Pounds.....Percent.....

Other Defects

Signs of Naso-pharyngeal Obstruction	{	Mouth breather
		Nasal voice
		Granular pharynx
		Cryptic tonsils
		Enlarged ant. cervical glands
		Eardrums dull

RECOMMENDATIONS

EXAMINED BY.....RECORDED BY.....Date.....

FURTHER EXAMINATION (in case of failure to gain)

X-Ray of Chest, Digestive Tract, etc.....

Special Nose, Throat and Sinus.....

Blood, especially Red Cells and Hemoglobin.....

Wassermann Reaction.....

Temperature Chart Record.....

Skin Tests for Proteins.....

Stools for Parasites, etc.....

ADDITIONAL NOTES ON PHYSICAL EXAMINATION.....

DISCUSSION

Dr. G. G. Burdick, Chicago: I have worked for many years trying to find out what a perfectly healthy individual was and perhaps I have been interested in all those who did not measure up to the standards. Something that is almost never

recognized by the profession, unless the mother or father has accidentally found it and told the doctor about it, and almost invariably he does not pay much attention to it, and that is muco-colitis. These cases that come from time to time are due to the infection of the *bas bacillus*. If you simply sterilize a tube of milk, inoculate with the feces in these cases, and if you find it all shot through with holes and coagulated you will find the child infected with gas bacillus.

It is an easy matter to detect but, unfortunately, no attention is paid to it. An excess of meat eating, an excess of sugar eating, will explain many of the cases the doctor has had and all of you have had. This bacillus will grow in milk without an incubator. This is differentiated from colon bacillus because colon bacillus will not give gas.

Dr. Mann, Elgin: The colon bacillus will produce gas formation in any form of sugar medium. There are other gas formers that will produce the same results, but true colon bacillus will produce and does produce gas bacillus.

Dr. J. W. Vanderslice, Oak Park: I did not hear all the doctor's paper, so I will be pardoned if I repeat. In doing post-graduate teaching, I found the doctors who come in from rural sections did not appreciate the factor of the gas bacillus in summer diarrhea. I want to tell you if you have two, three or four babies in the neighborhood come down with diarrhea, if you will take a pint of milk, put in a little of the infant's stool, if the next morning the curded milk shows violent fermentation, that the holes in the milk have been exploded out, and there is a little tinge of pink, let the pathologists fight as they will, but you have a gas bacillus and you treat your case accordingly.

Dr. Caroline Hedger, Chicago (closing): In closing, I would like to say that many of these cases take an immense amount of study and I am very grateful for the suggestion of the gas bacillus. I would like to hear from the doctor what he does for it when he finds it.

Dr. Burdick: In answer to your question. I regulate the amount of sugar, and particularly if the urine is loaded with indol, I cut the sugar down within the limit of toleration and put them on fruits and cereals; and then I have in a way done something which doctor really put into words here, I try to let them down on what is expected of them.

Dr. Hedger: We try to correct our cases along the lines he does for muco-colitis. The thing is that the great mass of these children can be brought to something like rational standard of weight with rational living, and I just want to add one word, that our figures are all low. We grade sick and well together, and we are attempting to get statistics on well children, so that we hope to be able to have some standards on child height and weight.

CONGENITAL HYPERTROPHIC PYLORIC STENOSIS*

JOHN A. GRAHAM, M.D.

CHICAGO

That this condition is congenital is accepted by most authorities and as such I have considered the cases I have operated on. In this disease, the age is considered of great importance from a diagnostic as well as a prognostic standpoint. It has been my observation that the condition usually manifests itself the second week of infancy, and is marked by persistent vomiting after the taking of food.

Symptoms and Diagnosis. 1. A well-marked outline of the stomach can be seen by a peristaltic wave which starts at the left of the median line and passes to the right, losing itself at the border of the ribs. One wave may follow another, apparently dashing against the pylorus, to rebound with explosive vomiting.

2. Persistent vomiting after the taking of food, with no evidence of shock.

3. A rapid loss of body weight, with the mucous membrane of the lips and mouth having a marked glazed appearance.

4. At times a tumor mass may be felt in the region of the pylorus. This, however, does not occur as often as the text-books would lead one to believe.

5. There is rarely an elevation of temperature and unless the patient is markedly dehydrated the pulse is not accelerated. The exception to this is true, however, when the condition has persisted for a great length of time. The infant is usually normal, but is unable to empty the stomach except by vomiting.

6. Constipation is usually present but never reaches a point where the symptoms could be confused with those of an obstruction.

Treatment. Early recognition of the condition and immediate surgical interference offer the best prognosis.

Early operation, before prostration is marked, and while the mother has a supply of milk, simplifies the after treatment.

Operation. 1. Possibly no operation requires

*Read at the 71st Annual meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

a closer observance of detail than the one performed on these little patients. The temperature of the operating room should be ninety degrees, or as close to that as is possible; as the conserving of body temperature is an important factor in the outcome of the case. The patient's arms and legs are wrapped in cotton and a small chest protector, front and back, should be worn. Contrary to the usual procedure, I find that a general anesthetic is rarely necessary. I have never used it, with the exception of a few drops of ether on a sponge held over the patient's nose just at the time the pylorus is cut and the muscles spread. With the aid of a local anesthetic, I have done a number of these operations while the patient was taking the contents of a bottle, without disturbing him.

2. A local anesthetic of apothosine, $\frac{1}{2}$ per cent, is made up with distilled water, which has been sterilized by boiling; to this is added five drops of adrenalin to each ounce of the mixture. This is used to infiltrate the tissues at the site of the incision.

3. I make an extreme right-sided incision to the outer side of rectus muscle. With small laparotomy sponges, 2x4 inches, from which is fastened a tape, the intestines are carefully guarded so that they do not escape through the abdominal wound. The pylorus is seized and drawn through the wound and a longitudinal incision is made through its muscle down to the mucosa. The muscle is then spread by a forceps allowing the mucous tube to herniate; this usually completes the operation. Sutures are rarely necessary unless the incision extends down on the duodenum, or too far up on the stomach or in the event the mucosa is opened. If the first complication occur, hemorrhage is apt to follow, and this must be controlled with a fine catgut suture; if the mucosa is cut, the rent must be closed by a couple of catgut sutures.

The pylorus is now dropped back and the peritoneum, fascia, and muscle closed with catgut, and the skin closed with horsehair (never catgut). Allowing the stomach to escape through the wound or delivering it on the abdomen is never necessary and should be carefully guarded against. If this should happen the stomach may dilate quickly and produce symptoms incident to

that condition. Small strips of adhesive are drawn across the wound to act as tension sutures. The child is given Ringer's solution almost immediately, this being substituted for water, and nursing is allowed eight to ten hours later. Vomiting stops almost immediately and the patient begins to gain in weight, the gain ranging from five to ten ounces a week, and in one instance a gain of twenty ounces was registered.

The simplicity and the speed with which this operation is performed leaves little to be desired.

DISCUSSION

Dr. M. L. Harris, Chicago: The principal points to be emphasized in this condition are two: first, early diagnosis, and second, early operation.

The four cardinal points in the diagnosis are vomiting, peristalsis to be felt in the stomach, a palpable tumor mass, and loss in weight. These four cardinal symptoms are present in 99 per cent of the cases. They make the diagnosis practically possible in all cases. The next point is early operation. The mortality rate increased rapidly with delayed operation. When the operation is not done until after eight weeks, the mortality rate rises to 17 per cent. Where it is done early, it has dropped to 2 per cent. These figures speak more than any other facts of the necessity of early operation. When the diagnosis has been made, there is no occasion to delay operation. These cases do not get well. The mortality rate is very high if left alone. The longer you wait the higher the mortality, and, therefore, as soon as the diagnosis is made, operate.

I would criticise closing the abdomen with horsehair. If these cases have existed for any length of time, the child has lost so much weight and is so weak and so reduced that the healing power may be very low and in a number of cases the abdomen has reopened. I should prefer trusting to something that had a little more strength and durability in closing the wound.

Dr. J. A. Graham, Chicago (closing): I am very much opposed to using catgut in closing the skin just for the reason Dr. Harris has outlined. Horsehair for the skin, with small strips of adhesive plaster to take up the tension, acts as the best material for skin closure. Too much pressure must not be made over the gastric region with the adhesive strips, or vomiting may continue. Care must be taken not to use too much adrenalin in the local anesthetic for fear of causing sloughing—this is especially apt to take place in emaciated children. It is most gratifying to see these little patients come up, in one case gaining twenty ounces in one week following the operation.

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MARCH, 1922

Editorial

MAKE HOTEL RESERVATIONS EARLY

PATRONIZE THOSE THAT PATRONIZE YOU

Illinois State Medical Society will meet in Chicago, May 16, 17 and 18, 1922.

The headquarters for the meeting will be the Congress Hotel, Michigan Avenue and Congress Street.

All the sessions will be housed under one roof.

The Congress is one of the largest and most popular hotels in the West. It is sufficiently commodious to accommodate all the visiting doctors.

The Congress has made the State Society a very alluring proposition as an inducement to hold the State Convention at this hotel. It is therefore only just and honorable that the members of the State Society reciprocate to the extent of making the Congress Hotel their headquarters while attending the State meeting.

The officers of the State Society respectfully request that alumni meetings, dinners, banquets, luncheons, etc., be held at the Congress as a token of appreciation of the concession made the Society by the Hotel Congress officials.

We respectfully suggest that members of the

State Society and others who contemplate attending the convention in May make reservations early and that the reservations be made directly with the Hotel management.

The local Committee of arrangements is Dr. Frank R. Morton, 25 E. Washington St., Chairman. Dr. Thos. P. Foley, 25 E. Washington St., Secretary.

ANNOUNCEMENT OF EYE, EAR, NOSE AND THROAT SECTION

ILLINOIS STATE MEDICAL SOCIETY MEETING MAY 16-18, 1922

The officers of the Eye, Ear, Nose and Throat Section of the State Association announce their plans for the annual meeting as follows:

Monday and Tuesday, May 15 and 16, forenoons, post-graduate instruction in ear, nose and throat. Afternoons, clinics in the various hospitals. Banquet Tuesday evening.

Wednesday, scientific program all day.

Thursday and Friday, forenoons, post-graduate instruction in the eye. Afternoons, clinics in the various hospitals.

Banquet, post-graduate work, and scientific program at the Congress Hotel, Chicago. All eye, ear, nose and throat workers are invited to

attend the post-graduate lectures. Those desiring to read papers before the section should notify the officers early, giving the title and time estimated for presentation. Make hotel reservations early.

ALBERT H. ANDREWS, President,
32 North State Street.

A. L. ADAMS, Secretary,
Jacksonville, Ill.

THANKS TO THEIR ILL-BEGOTTEN NARCOTIC LAWS

THE PUBLIC WEAL BECOMES THE PUBLIC WOE
WHEN MEDICINE'S WAYS ARE DICTATED BY
"WELFARERS" WHO MAKE A PATIENT
AND HIS DISEASE AS PUBLIC AS
THE PHONE DIRECTORY

The limit of the law is reached in one leap by the latest mandatory offshoot of the workings of the Harrison Narcotic Law whereby a physician is compelled to place on the prescription blank "in indisputable terms the exact nature of the ailment for which the narcotic is intended."

Nothing better than this could have been devised by the former Kaiser himself for completing a comprehensive card-index of a nation. That band of Germanophiles masquerading as "public welfare workers," and "foundation sociologists" continue to beat the tom-toms for the establishment of "kultur" in the United States. Here is a specific illustration of the way in which their efforts are meeting with success. They desire, and are achieving their desire by means of spoofery done into laws—a card-index of the American people, after the style beloved of all the good junkers, and that will put any home in the land on a level with the record books of a good pedigreed cattle show.

From the office of the Collector of Internal Revenue at Chicago, under date of February 1, 1922, was issued another reminder of the galling effects upon remedial practice of a misguided laity's experiments in telling doctors how to doctor.

Read the quoted clause again, *only one of the inhibitions upon a physician's discretionary powers* embodied in this communication.

In this clause lies one of the greatest outrages ever inflicted upon the individuals of the United States. For when the doctor states "the exact nature of the ailment for which the narcotic is

intended" together with the restriction stated elsewhere in this order of "the full name and address of the patient" the last vestige of privacy is destroyed for the unfortunate sick. Aside from the annihilation of the confidential relations between physician and patient—admittedly so long and so great a curative factor—this command mercilessly publishes to druggist, entry clerk and a whole retinue of political inspectors the personal physical condition of the suffering patient. A sick dog holds the privilege of crawling under a barn and hiding his troubles. A sick man or woman, according to the Harrison law, is denied this inalienable right and must cry aloud his malady from the housetop and the street corner. This litter came out from the treasury department exactly three weeks before the day when the entire country was celebrating the birthday anniversary of the man who wrested this country from the jaws of the British lion so that the people who lived here might dwell in personal liberty, and only a fortnight before the birthday anniversary of the stern patriot who guided the Ship of State through the rocks and shoals of civil strife so that black men as well as white men might be free.

Shades of George Washington! Spirit of Abraham Lincoln! What would either of you have said to this card-index of the citizenry? The trouble all comes from giving edged tools to the ignorant. If a child is handed a gallon of kerosene, a box of matches and a lighted candle to play with, who is to blame if the house is blown into the middle of next week and the child along with it? When a squad of sob sisters and delectable dudes is permitted to rise up from their cigarette stubs and curling irons and calling themselves "public welfarers" tell the doctors of the land how to cure pneumonia or regulate Addison's disease who is to blame if the public weal becomes the public woe?

THE INCONSISTENCY OF PRESIDENT HARDING.

At Marion, Ohio, October 1, 1920, when a candidate for President, in an address, President Harding said:

"Through America's continued progress we have been saved from the growth of too much centralism, too much paternalism, too much bureaucracy and too much infringement of the in-

dividual's right to construct his own life within our American standard of reason and justice.

"We do not want or we will not have either bureaucracy or paternalism.

"I recognize certain dangers which are always presented when government undertakes large and detailed tasks. I have said already today that we must avoid paternalism, and that we must avoid it because a paternalistic social welfare program would smother some of the liberties, some of the dignity and some of the freedom for self-expression of our individuals.

"I would like to point out to all America that there is grave danger at hand when centralized expression begins to take from local communities all the burdens of social conscience. The best that humanity knows comes up from the individual man and woman through the sacred institutions of the family and the home, and, perhaps, finds its most effective application in the community where life is personal, and where there is not an attempt to cut men and women to pattern and treat mankind as a wholesome commodity."

Again, in a recent public speech President Harding said:

"We must combat the menace in the growing assumption that the state must support the people, for just government is merely the guarantee to the people of the right and opportunity to support themselves. The one outstanding danger of today is the tendency to turn to Washington for the things which are the task or the duties of the forty-eight commonwealths which constitute the state."

Here is the inconsistency.

President Harding sponsored and put over the Sheppard-Towner maternity bill. This piece of legislation is paternalism in excelsis. Yet the President shies at the idea of the soldier's bonus on the ground that this grant would be "paternalistic."

It looks almost as if the President and the professional promoters of public welfare legislation had a "gentleman's agreement" about certain matters. If the Sheppard-Towner maternity bill is not a direct centralization of power at Washington and an assumption by the state of the rights of the private citizen, then what is it? Undue paternalism with a vengeance is what this bill makes for.

Miss Alice Robertson, the present woman mem-

ber of Congress, has advanced the claim and that freely and in the open, that this maternity legislation sponsored by President Harding was enacted merely for the purpose of building up more of a Federal machine and offering opportunity for the looting of the treasury under the guise of a worthy object. The National Association Opposed to Woman Suffrage "fears that its purpose is to break ground for the dissemination of information on birth control and that it is headed towards free-love and Socialism in general." Senator Reed, of Missouri, remarked in unequivocal terms upon the idea of legislation intruding itself upon the relations existing between mother and child.

Yet President Harding, with a free hand, attempts to guide the reins of one of nature's fundamental laws without feeling that there is a savor of paternalism therein. Meanwhile the soldiers' bonus, in reality a *war charge*, an expense that would have been multiplied tremendously had the great conflict continued through another spring campaign, an expense incurred in our life and death fight for freedom, is legislative matter that the President fears to touch because of its inherent "paternalism." To the man up a tree it would seem as if the soldiers' bonus was the President's and the government's business and as if the Sheppard-Towner maternity bill and its allied legislative monkey-works were not. It would seem also to thinking spectators as if the money that will be squandered through the Sheppard-Towner channels and similar distributory delta might better have been put by the government into the pockets of the men who saved that government and without whom and without whose work of peril and sacrifice in the crisis there might be no White House standing today with a chair all polished up for President Harding to sit in, or a desk upon which he might affix his John Hancock to any and all freak mis-christened bills for bilking the dear public not only out of its eye teeth but out of its milk molars as well. The soldiers' bonus won't bankrupt the government. But only Heaven knows what will save the whole American nation if somebody doesn't stop the soviet taint that has got pretty well disseminated through Washington lobbies and—may the Sheppard-Towner bill bear witness—into the veins of the first gentleman of the land!

PUTTING THEM ON RECORD BEFORE THE PRIMARIES, APRIL 11, 1922.

The North Shore branch of the Chicago Medical Society has perfected an organization which it is hoped will have far-reaching beneficial results among members of the Legislature.

Each doctor in the branch is constituted a committee of one to work against prospective members of the Legislature who stand for vicious legislation. A large mass meeting has been called to which every prospective member of the Legislature is to be invited to appear and state his position on things medical. The following letter and pledge postal card were sent to every member of the branch and it was very gratifying to note the interest the rank and file of the profession is taking in the subject.

NORTH SHORE BRANCH OF THE CHICAGO MEDICAL
SOCIETY

IMPORTANT MEETING

Do You Know What the Doctors are Going to Get at
the Next Legislature? Pass the Word Along!

Dear Doctor: Your chance is at hand to acquaint the prospective members of the next Legislature with the desires of the medical profession.

In the past, members of the legislature have complained bitterly of the fact that doctors fail to explain to them at a sufficiently early date the dangers to the public of vicious medical legislation. An eleventh hour appeal, the legislators say, is worse than useless.

This time we must not be caught napping. With your help we will not.

Recently thirty-five members of the North Shore Branch of Chicago Medical Society met and discussed the dangers resulting to medical practice from laws that—

(1) Dictate the practice of medicine.

(2) That tend to set fees.

(3) That give the so-called "practitioners," such as osteopaths and chiropractors, increased standing in the community, without setting for them a standard of education such as the regular practice of medicine requires.

We feel that it is high time that medical men should get together and form an individual unit of vast influence, and through joint action and combined power take steps to use their efforts to educate legislative officials as to the safeguarding of the public along medical lines, and to work against candidates known to favor vicious medical legislation.

After the program at the regular meeting that will be held February 7, medical economic problems will be discussed. Also steps will be taken to perfect in this branch an organization that will have as its object the inhibition of detrimental laws.

It is important for your future that you attend this

meeting and hear the discussions. We want it to be the largest assemblage that we have ever had.

EXECUTIVE COMMITTEE.

PHYSICIAN'S PLEDGE

I pledge myself to the following:

1. To cast aside party politics for the good of medicine.

2. To work and vote against all candidates who are in favor of undue extension of state medicine.

3. To work and vote for all candidates who are in sympathy with a single standard in the practice of medicine.

4. To vote against attempted enactment of laws by lay people that attempt to dictate therapy and fees.

Name

Address

I hereby donate \$1.00 or more to help defray expenses.

WE THANK GOD FOR JUDGE CONNOR

DOCTOR INDICTED FOR REFUSAL TO PAY \$500 IMPROPERLY
DEMANDED BY A PERIPATETIC U. S.

DEPUTY COLLECTOR

DR. MANNING ACQUITTED

Dr. J. M. Manning, mayor of the city of Durham, a well-known physician and a man of the highest character, was recently indicted in the federal court at Raleigh for violation of the Harrison narcotic law, and was unanimously acquitted by the jury and the judge last Saturday.

The law under which Dr. Manning was indicted is one of the most wholesome and beneficial laws on the federal statute books, and is intended to prevent the indiscriminate sale of opiates and other narcotics and to eliminate so far as possible the drug habit. But like most federal statutes it provides that some department or officer of the government, in this instance the secretary of the treasury, may make regulations for carrying the act into effect. This law has been surrounded with so many abominable and useless regulations that it is almost impossible for a druggist or physician to sell or administer opiates or narcotics without violating some regulation; and inspectors and deputies are going over the country inspecting the records of druggists and doctors, and where they find a technical violation of some regulation they demand the payment of a heavy penalty or threaten indictment. In this case the deputy demanded the payment of a penalty of \$500, and on Dr. Manning's refusal, issued a warrant against him and demanded that he be placed under a bond of \$10,000, which was given. Judge H. G. Connor, who tried the case, declared this act on the part of the government inspector a "violation of both the letter and the spirit of the constitution."

This case is one which should not only attract the attention of every citizen, but should arouse his indignation. Government by inspectors and deputies during the war may have been to some extent necessary, but now that the war is over the citizen is going

to demand that the government, to which he pays such enormous taxes, shall protect his rights and not treat him as an alien enemy. Why should a deputy revenue collector, who feels that some regulation of the department has been violated, demand of an honest citizen a penalty of \$500, and on refusal, be authorized to have such citizen placed under a \$10,000 bond with an implied threat of the Atlanta penitentiary, in order to collect the penalty which no process of law has fixed as being due by the citizen? The public will not stand for such treatment, and it is time to speak out for our protection.

Those who do not know Dr. Manning would naturally feel that he is a criminal, charged with an offense in the federal court requiring \$10,000 bond, as if he would leave the country; but those who know his high standing and character have known from the beginning that he had wilfully violated no federal statute. Dr. Manning has probably not been hurt by this indictment because he is so well known throughout the state, and because he was sufficiently able to present his defence and vindicate himself from this attack by the government to which he is ever loyal. But the real lesson in this case does not grow out of the fact that a well-known man of high character has been indicted. Suppose the defendant had been an obscure person living an honest and correct life, but without the friends and the influence and ability to make a proper defense, then in such case he may have been cast in jail for lack of bond and finally railroaded to the penitentiary for refusal to pay a \$500 penalty into the treasury of the United States which was improperly demanded by a peripatetic deputy collector. The remarks made by Judge Connor from the bench after this case was concluded and the defendant set free, should be taken to heart by the public. It should not be necessary for the judge to comment on these flimsy cases brought into the court against our best citizens; but it is necessary for him to do so by reason of the tendency to make criminals of people who are trying to live honest lives, and we say in the utmost reverence and sincerity: we thank God for Judge Connor.—Morning Star, Wilmington, N. C. —2-14-1922.

IN PREPARING INCOME TAX REPORT FOR 1921 TAKE ADVANTAGE OF THESE EXEMPTIONS

A list of the special allowances made by Uncle Sam to doctors when filing returns on income. File this list away

When you prepare your income tax returns next year, be sure and include the following exemptions, allowed to members of the profession. A considerable number of physicians neglected to claim them last year through ignorance of the fact that they were entitled to them and thereby paid Uncle Sam more money than they should have. Uncle Sam says you are entitled to the following exemptions:

If you own your own house and have your office in one room of that house, you may *not* claim a deduction for office rent. But if you pay rent to another person, for the use of office space, you are per-

mitted to deduct the amount expended for the rent of that office.

If married, you may first record a deduction this year of \$2,500, if your income is \$5,000 or less in place of \$2,000 last year from your gross income. If single, you deduct \$1,000. For each child or dependent under the age of eighteen you are allowed a further deduction of \$400, instead of \$200, as last year.

Exemption may be claimed for the cost, repair and upkeep of your automobile or other vehicle which is used mainly in the conduct of business. The salary of the chauffeur, if most of his time is spent in driving to professional calls, may also be deducted. Amounts spent for the hire of taxicabs, and also street carfares, *on business calls*, may be taken off.

Exemption may be claimed for the salary of a nurse, laboratory assistant, stenographer, or clerical worker in the office, whose work is connected with the doctor's professional duties. Deduction may also be made for the salary of a maid or other person who spends the greater part of his or her time in opening the door or answering the office telephone.

Doctors may also take off an item for medicines used in the office in the treatment of patients, also for medicine given out to patients who are too poor to pay for it. Bandaging, alboratoryr

E for it. Bandages, laboratory materials, and all other supplies necessary to the running of the physician's office are permitted to be deducted.

Telephone bills in their entirety may be deducted, because it is understood that the telephone in a doctor's office, even when that office is in his home, is almost entirely used for professional purposes.

Exemption is permitted for the correct proportion of expenditure made for light, heat and water. Depreciation of 10 per cent. of the original cost each year is allowed upon office furniture, it being considered that furniture should last about ten years.

Most doctors have a medical library more or less extensive. In the courts it has been decided that after ten years a medical book is out of date and therefore worthless. For this reason the doctor is allowed a depreciation item of ten per cent. each year on his medical library.

On surgical instruments, he may charge off on an instrument with a fair average life of five years, one-fifth of its original cost each year.

Any taxes which a doctor may be required to pay upon materials required for his work may be deducted, and all licenses which he is by the nature of his business required to take out, may be taken off of his gross income reported. This includes his license to prescribe alcohol, narcotic license, and so forth.

Also, doctors may deduct dues paid to professional associations to which, in the interest of his business, he belongs, and exemption is also allowed for subscriptions to all medical newspapers and journals.

If his books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debts, because as explained in the tax manual, "if his books are kept according to this

system, he is only reporting as gross income those accounts which have proven to be good, and therefore bad accounts cannot be deducted because they have already been excluded."

If the books be kept on an "Accrual basis (that is, on the basis of expenses actually incurred and payable even though not yet paid, or income earned although not yet collected), it is permitted that the doctor may charge on his income tax blank all debts which are definitely ascertained to be worthless during the year past.

In the same way, the doctor is permitted to claim deductions for all other expenses within the scope of his profession, and the amount of his tax is determined on the net income which remains after all of these items have been deducted.

I FEEL WORSE AND DO LESS ABOUT MY DOCTOR'S BILLS THAN ABOUT ANY OF THE OTHERS

The following from *The Saturday Evening Post*, Feb. 11, 1922, is worthy of reproduction:

I feel worse and do less about my bills to doctors than about any of the others, and I have been trying to determine why this is, because I know that it is a common experience. Perhaps it is mainly because doctors are easy creditors. You must have them, and according to their ethical requirements they must come at your call, whether you pay them or not. Perhaps it is because most doctors' bills—after you get well—seem exorbitant; perhaps because the doctor has no recourse except to sue, and it is only in cases where large sums are involved that he cares to do this. On the other hand, a doctor becomes, in the very nature of the case, more or less your personal friend. That, I am sure, is what makes us feel so badly about owing them. Personally I like most of the men we have had about us professionally, and occasionally I make up my mind to let everyone else wait, and pay the doctors and dentists and surgeons and specialists first. Then I get out their bills and total them up and change my mind. The whole sum is too formidable.

BETRAYAL OF THE MEDICAL PROFESSION OF THE UNITED STATES BY MEDICAL MEN HOLDING HIGH POSITIONS

WAKE UP DOCTOR!

These are days of great changes in the opinions of leaders of the American Medical Association. In 1916, Dr. Alexander Lambert of New

York, later President of the A. M. A., was preaching the doctrine of Compulsory Health Insurance; Dr. Frank Billings, of Chicago, Resident Trustee, was going on record as being UNEQUIVOCALLY in favor of the measure and even wanted teeth put in the bill in order to compel the working physicians to do their duty. Dr. Frederick R. Green, Secretary of the Council on Health and Public Instruction, a position in which a man can do more good and more harm than in any position in the A. M. A. outside of the Editor of the *American Medical Journal*, was saying "It would be most unfortunate in any state to have a bill *introduced and to have it opposed* by physicians that would put them in the position of opposing WHAT OTHERS FEEL IS A MUCH NEEDED REFORM. So all we ask is to EDUCATE PHYSICIANS." Who are the others who must not be opposed? To drug physicians into accepting Compulsory Health Insurance was the work of the leaders of the A. M. A. and particularly the work of this Council on Health and Public Instruction and the A. M. A. Journal. It was only when the rank and file waked up that the leaders saw the handwriting on the wall and commenced to change their fixed opinions. If Compulsory Health Insurance is dead and Dr. Frank Billings, resident Trustee, made that statement at a meeting of the A. M. A. Trustees in Chicago, Nov. 11, 1921, who killed it? Not Dr. Billings with his unequivocal approval but the working physician who stirred up his County Society; the County Society which stirred up its State Society and the State Society which let its delegates know that the time for talking and deference to leaders had ceased and that the time for action had come. New Orleans settled Compulsory Health Insurance under the name. But what about Dr. Billings' Community Health Centers, paid for by the State and manned by physicians paid by the State?

Public Service men controlled the A. M. A. Meeting at Boston and prevented a common sense meaning for "State Medicine" being adopted. Shall they control in St. Louis? The question will not down and the time to educate our members is now, when the educating is good.

LEGISLATIVE COMMITTEE.

Wayne County, Mich. (Detroit).

Dec. 5, 1921.

WAKING UP AT LAST

Well, well! Michigan is waking up! The January number of the *Journal of the Michigan State Medical Society* publishes the Cabot controversy and editorials that appeared in our JOURNAL and, in addition, a number of editorials and editorial notes of their own touching upon the efforts of erstwhile medical leaders to socialize medicine. With New York, Ohio, Illinois, Indiana, and now Michigan rising up in opposition to some of the schemes of the uplifters which, if carried to fruition, would destroy private medical practice, it may be that other states will see the light and join in the effort to not only protect but save the rank and file of the medical profession. As one thoughtful and analytical medical man has stated, "The average doctor has his face to the sun and does not see the overwhelming storm coming from behind and threatening to destroy him." We hope he will wake up before it is too late!—*Indiana State Medical Journal*, January, 1922.

WE HAVE PERMITTED THE GREAT
AMERICAN MEDICAL ORGANIZATION
TO BECOME THE PLAYTHING OF
PAPER PHILOSOPHERS

It might be well for us to stop a moment in our mad race for big things to ponder on the question raised by Thomas Huxley at the dedication of the Johns Hopkins Medical School in 1876. That speech comes home to us today with peculiar meaning and it is well worth reading and re-reading. Thus spake Thomas Huxley, the gallant apostle of truth, the whole truth and nothing but the truth, forty-five years ago.

"Do not suppose that I am pandering to what is commonly understood by national pride. I cannot say that I am in the slightest degree impressed by your bigness, or your material resources as such. Size is not grandeur and territory does not make a nation. *The great issue*, above which hangs a true sublimity, and the terror of overhanging fate, *is what are you going to do with it?* As the population thickens in your great cities and the pressure of what is felt, the gaunt spectre of pauperism will stalk among you and *communism and socialism will claim to be heard*. I cannot understand why other nations should envy you or be blind to the fact that it is for the highest interest of mankind that you

should succeed; *but the one condition of success, your sole safeguard, is the moral and intellectual clearness of the individual citizen.*"

If we are fighting today with our backs to the wall to prevent the socialization of medicine and the degradation of the individual, it is because in our race for bigness, we have permitted our moral and intellectual clearness to be befogged. As individual practitioners of medicine, we have boasted of our great national organization and its great Journal. We took pride that the A. M. A. was worth almost a million dollars in quick assets and that the income of its Journal was reaching toward that princely sum of one million dollars for one year's income. We bragged that our association numbered its members by the thousand but we forget to ask Huxley's pertinent question "What have we done with it?"

When we cast up accounts, our pride is due for a hard fall.

We have permitted our great national organization to become the plaything of "paper philosophers," men too rich or too tired or too lazy or too ambitious to tread the thorny path of the practice of medicine; men who prefer the job of telling us what to do, to doing it themselves; men who chafe at the long, tedious apprenticeship of the physician and surgeon but prefer short cuts to positions under various names; men whose sole aim is to sit on a throne, directing and controlling a horde of medical slaves who are to do all the work, take all the responsibility but to pass up the rewards. And all of this has happened, because we have been too busy growing big to be sure that we were growing just. We gave these men power and like *Oliver Twist*, they wanted more. It is a human failing, for all men are potential despots at heart.

We have seen our good money paid out in salary to an avowed apostle of Compulsory Health Insurance by the Council on Health and Public Instruction of the A. M. A., at the bidding of a chairman who was a shining light in the councils of the American Association for Labor Legislation, sponsors for the socialization of medicine. And we were asked to accept the report of this apostle and his brother of the A. A. L. L. as being disinterested.

This year, we were treated to the spectacle of a leader of the A. M. A., a gentleman who has

been a power for years in shaping the policies of the A. M. A. and its Journal, appearing before the House of Delegates to repudiate a speech, favoring Compulsory Health Insurance, which he had made some time ago and which had been printed in the Journal of the American Association for Labor Legislation. He did not claim that he had not been fairly reported but now that he was a candidate for re-election as Trustee and the A. M. A. had gone squarely on record as opposed to Compulsory Health Insurance, he wanted to take it all back. A man has a right to change his mind but to the disinterested observer, that change would have been in the better taste, if announced at a time, when the candidate was not looking for votes.

And to add to the strangeness of the situation, we found men who were openly favoring "State Medicine" on the score that it means bread and butter to them, jumping in to back up this candidate who was recanting the very opinions his backers were favoring. These Public Health Officials waxed indignant as they denounced the men who had brought out this speech of the candidate's favoring socialization; they called on the House of Delegates to try them for treason and to boil them in oil, if necessary. And what had these men done who were being thus roundly abused? They were simply trying to find out whom this candidate would represent, if elected. He had preached Compulsory Health Insurance in the A. A. L. L. Journal and the question of moment was, will this candidate, if elected, represent an interlocking directorate of the American Association for Labor Legislation and the A. M. A., or will he represent the overwhelming majority of the medical profession who are opposed to the measures for which the socializers of medicine stand?" The candidate was elected after a hard fight. Time will tell but vigilance alone will be the price of knowledge.

We have lived to see Johns Hopkins fix a fee for a week's care by a physician at \$35. A salary which many a taxi driver will scorn. All these things we have seen and the question is, what are we going to do with it? That no man shall be able to plead ignorance of existing conditions, is the purpose of the *Bulletin*. The profession must fight. If necessary take a beating and fight again. Our socializers hope to tire us out but once we drive them into the open, take

from them their brazen shields of wealth, position and reputation, behind which they are hiding, then and only then, will the overwhelming majority who pay the freight come into their own again and the A. M. A. represent the physicians of this country and not be the mouthpiece of our "Paper Philosophers."

Bulletin of the Wayne County (Detroit) Medical Society.

Oct. 3, 1921.

THE COUNCIL ON SO AND SO MAKES RECOMMENDATIONS

IT IS VOTED ON BY DELEGATES WHO OFTEN DO NOT UNDERSTAND THE MEANING OF THE VOTE

DANGERS AND DUTIES

Dr. Hobart Hare, Professor of Therapeutics and Diagnosis in the Jefferson Medical College, in an address before the Medical Society of New Jersey, on the "Dangers and Duties of the Hour," suggests the following important influences which the profession should recognize:

First: Standardization of everything we touch and do, often by instigators who have not made a success of practice, or as a result of some fault in their mental structure, go about devoting themselves to the task of trying to direct their successful brethren.

Second: Adverse legislation.

Third: Certain dangers inherent in group practice.

Fourth: The burden imposed by the Harrison Act and the injustice of the taxation under it, the proceeds of which are not devoted to the uplift of the profession or benefit of the people needing narcotic drugs.

Fifth: Lack of united effort in opposition to inimical laws and the invasion of the cults.

Sixth: Serious faults in the organization and functioning of the American Medical Association, as shown in the membership and behavior of the House of Delegates.

There is evidence of general, but rather passive agreement with all his contentions except the last. Few have been inclined to criticize the doings of the House of Delegates because there is general recognition of the power and influence of the A. M. A. It has certainly carried on aggressive campaigns against the low-grade medical colleges, the charlatans and the nostrum frauds,

and has been a power in promoting ethical practice, but one may reasonably fear that Dr. Hare's criticism is, to some extent, logical.

He contends that the House of Delegates is ruled by a few, for although it is made up of delegates from all the state societies "who are worthy members of the medical profession; but they are not usually chosen as members of the House of Delegates because they know anything about the business that is going to be transacted." He then goes on to describe the passage of motions made on recommendation of the "Council on So and So," and voted for by members who often do not understand the meaning and effect of the vote.

This criticism is the common criticism of all representative legislative bodies. There are always leaders in such assemblies, and leaders are astute, ambitious, and having ability in moulding plastic human material. They would not be leaders unless they had these qualities. They may not always use their power judiciously, but it is fair to assume that they believe that they are working out plans for the greater good to the greater number, even though personal ambition may enter into the consideration of the means to an end. The man who hasn't faith in himself cannot be a successful leader, and the men who have a common purpose naturally group themselves together and plan for the adoption of formulated policies. It is somewhat in evidence that power is too much concentrated in the House of Delegates and that the sentiment of the profession as a whole may not always be fairly considered; but this is not so much the fault of this body as it is of the constituent societies of the Association.

The selection of delegates should be made the subject of careful study and the appointment should be given to wise men who can exert influence in an assembly. Some men, entitled to honor by reason of valuable work in medicine, may be of no value in such bodies, for the experience and training of many brilliant teachers and practitioners fit them more for scientific rather than deliberative or administrative work in controversial conventions. If there is reason for changing the personnel of the House of Delegates, let state delegations get in touch with each other and build up an organization with a purpose, and go in prepared to exert corrective influences.—*Boston M. & S. J.*, Dec., 1921.

THE ALCOHOL QUESTIONNAIRE

Efforts to demonstrate facts relating to medical practice are of value in proportion to the advantage of the application of the testimony. When the public was informed of the purpose of the *Journal of the A. M. A.* to get the testimony of physicians as to the value of alcohol in the treatment of disease, there were varying opinions of the benefits to be derived. That a certain knowledge has been acquired, is beyond question, but the knowledge seems to be a demonstration of personal interpretation of a problem and, in certain instances, in accordance with some prejudice.

From a psychological standpoint, it seems to be largely a question of how far physicians exhibit unreasoning conclusions, and it may be that the analysis is useful in so far as it may be used to estimate the attitude of doctors toward a medico-social problem. If that was the purpose of the A. M. A., no one should criticize it. If, however, the purpose was to determine the value of alcohol as a therapeutic agent, the method is open to criticism. The *Journal of the A. M. A.* is, of course, aware of the fact that a very small proportion of the practicing physicians are competent to submit any drug to scientific analysis, and the result of the questionnaire demonstrates that there is no unanimity of opinion relating to the value of alcohol as a therapeutic agent. If the *Journal of the A. M. A.* had in mind the advantage of establishing the position of alcohol in therapeutics it would have been far better to have spent the money in employing experts in physiology and pharmacodynamics, under a commission, to state in scientific terms the effect of alcohol when used in the human body, and the indications for its therapeutic application, for although such statements might be repetition, they would be authoritative.

We do not ask the general practitioner for opinions on radium, the limitations of digitalis, the abuse of strychnia, nor the relative value of antiseptics, and general practitioners do not, as a rule, generally employ powerful agents except as they derive information from others as to their value. If the *Journal of the A. M. A.* had published the opinions of Cannon, Diner, Mallory of Washington, or Stockton of Buffalo, together with other scientific investigators, the value of alcohol in treating disease would be more clearly defined in the minds of practitioners, and the profession would not have been subjected to the ridicule which has been freely expressed.

The social aspect of the alcohol question is a subject by itself, and had better be dealt with as such. It rather seems now that the *Journal of the A. M. A.* should carry through and put the therapeutic value of alcohol before the readers, rather than leave the matter where it is.—*Boston Medical and Surgical Journal*, February 16, 1922.

ALCOHOL AS A DRUG AND NOT AS A BEVERAGE

The title of this editorial note, or one resembling it, has headed other articles for so many years that some may consider that it covers an exhausted subject, but as a matter of fact the subject is not exhausted, and the enforcement of the Prohibition Act is beginning to produce results which are interesting and important to the medical profession.

Entirely apart from the evil influences of alcohol when used to excess by the individual, and entirely apart from its evil influences on the social order when used in excess, its employment as a drug is becoming more clearly recognized, partly because it cannot be obtained except as a drug and partly because, under the Prohibition Act, the fact that alcohol possesses therapeutic power is recognized in that reputable physicians may prescribe limited quantities of it in the treatment of disease. Such a differentiation between the use of alcohol as a beverage and its use as a drug is of vast importance, because heretofore these two uses have been hopelessly confused, with the result that the profession has been somewhat divided: some of them siding with those fanatical individuals who believe that alcohol is always a curse and never a benefit, and those holding fast to opinions reached through large clinical experience that the drug is a useful one, possessing limitations as do all other drugs.

If any one thinks that the subject of alcohol has been settled once and for all even as a sociological problem, he is certainly mistaken, for the rest of the world has not advanced, or receded according to the views of different individuals, as far as has the United States, and even when alcohol comes to be recognized as a drug, or a remedy to be properly used in disease, there will still be some who, because of its occasional abuse, will be ready to attack it.

It is interesting to note that those medical men who are best qualified to determine the medicinal value of this substance are strongly in its favor, recognizing its limitations just as they recognize the limitations of every other drug which nature or chemistry has given to mankind. When medical bodies or medical individuals have condemned alcohol as a drug, the condemnation has resulted from the opinions of those who know least about it rather than those who know most about it. Oftentimes some resolution is passed by a medical organization when only a few members are present, and those few members have been gathered together for the specific purpose of forcing their views upon the community. Usually the widest publicity is given to such a news item, whereas, for obvious reasons, when strictly medical meetings discuss this matter from a scientific and medicinal standpoint, little attention is attracted.

These preliminary remarks, which we repeat are to be definitely separated from the great theme of alcohol as a beverage, are apropos of a series of contributions and a discussion made by different

members of the American Therapeutic Society at its recent meeting, in which many of the scientific investigations which have been made concerning this drug were brought forward and the clinical value of the drug was discussed.

Diner of New York closes his paper, in which he summarizes what might be called the physiological action of alcohol as a drug, by quoting the words of the late Abraham Jacobi, President of the American Medical Association but a few years before his death, in which Jacobi said: "I do not contest observations of experiments in either health or disease in man or animals; one of the most profitable laboratories, however, is the hospital or private bedside." As we all know, this eminent man repeatedly reported the success which he obtained in the treatment of various forms of disease by this drug in large doses.

In the paper by Mallory of Washington, who wrote upon the "Effect of Alcohol on the Gastrointestinal Tract," the same view was expressed that alcohol beverages have a certain practical application in the treatment of disease when it is desired to influence the gastrointestinal tract, adding that its therapeutic use and contraindications must be determined here as elsewhere by the physician in each particular case, it being recognized that in many instances the contraindications will be stronger than the indications.

In still another paper upon "The Effects of Alcohol in the Therapy of Internal Diseases," by Stockton of Buffalo (than whom there are few who have had a larger experience and who have written more largely upon diseases of the alimentary tract), he uses these words: "The action looking toward the exclusion from the Pharmacopœia of alcohol as a remedy probably fails to represent the opinion of the majority of the physicians. The action of the House of Delegates to the American Medical Association on this subject makes it advisable that the American Therapeutic Society review the subject thoughtfully, avoiding if possible the acrimony which heated debate often engenders." Stockton then goes on to say that any substance so potent as alcohol and so widely and indiscriminately used both socially and medicinally in the past must necessarily have been harmful to many, and admits that in many instances the happy effects which have followed its employment have been in reality due to its dulling influence upon the nervous system and the temporary relief to mental and physical suffering. This we believe to be a very important therapeutic result and one which is often exceedingly desirable, although we are in accord with Stockton in condemning the use of alcohol as a stupefient or remedy to obscure symptoms which had better be allowed to continue in order to make the course of the disease the more clear to the physician and patient.

As he well says, the arguments advanced against the therapeutic use of alcohol might be just as

wisely raised against any drug, and because it is competent to do harm, this is no reason it is not competent to do good. He then discusses the various conditions in which he believes it to be useful, and emphasizes the point, which is self-evident but nevertheless worthy of remembering, namely, that when alcohol is used as a therapeutic agent it should not be given in quantity greater than that which the organism can readily oxidize.

It is interesting to note that so conservative a practitioner with so many years experience back of him concludes his paper to the effect that the present legal restrictions to the therapeutic employment of alcohol place upon physicians an unusually heavy burden and add perplexity to our efforts in relieving human suffering.

In another paper by Bishop of New York, after emphasizing the point which we have already emphasized, namely, that this discussion deals with alcohol as a drug and not as a beverage, he states nevertheless that he has never found it desirable or necessary to prohibit its moderate use in people suffering from heart disease or arteriosclerosis, that it will often give relief in angina pectoris or physical collapse, although so do other drugs, such as nitroglycerin and aromatic spirit of ammonia.

Sajous of Philadelphia, in discussing the effects of alcohol upon the endocrines, quotes largely from other writers and expresses his regret that those who have been most active in antagonizing its medicinal use have ignored the teaching of real science concerning it.

Last of all, Morris of New York, writing upon "Alcohol and Surgery," describes its employment when indicated for the relief of pain, its local application when diluted with water as an evaporating lotion, its employment in the "flaming" of instruments for rapid sterilization, its use by gynecologists in 25-per-cent solution, for flushing purposes in cases of septic endometritis, and concludes his paper by stating that after surgical operations, for the purpose of overcoming the effects of shock and for stimulating flagging energies into activity, alcohol appears to have a place of considerable importance at times, although good judgment is required in order to avoid injurious action. He also points out that continuous vomiting after surgical operations is sometimes quieted promptly by small doses of champagne, and the patients who are making slow recovery from operation occasionally make prompt response for the better when alcohol is given in the form of good wine or spirits.

In the discussion of these papers, Dr. Osborne of New Haven expressed the belief that the medical profession could get along without alcohol in the treatment of disease, but according to the report in the *Medical Record* he immediately qualified this statement by the further one that he did not mean by this remark that there were not indications which were better met by alcohol than by some other drug.

Before concluding this subject the American Therapeutic Society passed a resolution to the effect

that alcohol has a proper place in the treatment of disease, and ordered that this resolution with another along the same line should be sent to the proper authorities.

Once more let us express the hope that our renewed discussion of this important problem is separated as far as possible from the use of alcohol as a beverage and from its employment in social life. It deals solely with the question of whether alcohol, properly used, is one of the agents which physicians should be trained to employ skilfully in the treatment of disease. We think the answer is emphatically in the affirmative.—*Therapeutic Gazette*, Jan., 1922.

BURDEN OF PROOF ON QUARANTINE OFFICERS

(*Ex parte Arata (Calif.)*, 198 Pac. R. 814)

The District Court of Appeal of California, Second District, Division 1, in explanation of why it, on a writ of habeas corpus, ordered the petitioner discharged, when the health department of the city of Los Angeles had instructed the jailer and chief of police not to release her until she had submitted to an examination to determine whether she was infected with a communicable, infectious or quarantinable disease, says that at the hearing on the writ proof was not offered to be made that she was at the time of her arrest a woman of ill fame. That the health authorities possess the power to place under quarantine restrictions persons whom they have reasonable cause to believe are afflicted with infectious or contagious diseases coming within the definition set forth in Section 1979a of the Political Code of California, as a general right, may not be questioned. It is equally true that, in the exercise of this unusual power, which infringes on the right of liberty of the individual, personal restraint can only be imposed when, under the facts as brought within the knowledge of the health authorities, reasonable ground exists to support the belief that the person is afflicted as claimed; and as to whether such order is justified will depend on the facts of each individual case. When a person so restrained of his or her liberty questions the power of the health authorities to impose such restraint, the burden is immediately on the latter to justify by showing facts in support of the order. It might be proved, for instance, that the suspected person had been exposed to contagious or infectious influences; that some person had contracted such disease from him or her, as the case might be. Such proof would furnish tangible ground for the belief that the person was afflicted as claimed. But the court wishes here to emphasize the proposition, which is unanswerable in law, that a mere suspicion, unsupported by facts giving rise to reasonable or probable cause, will afford no justification at all for depriving persons of their liberty and subjecting them to virtual imprisonment under a purported order of quarantine.

Coming, then, to a case in which it is claimed that

the person suspected is one whose habits are such as to warrant the belief that such person is afflicted with a venereal disease: The court may agree that in cases of persons who commit acts of prostitution—that is, acts that are commonly understood to fall within the "commercial vice" definition—such a majority of them may be afflicted with infectious venereal disease as to justify the health department in enforcing the preliminary measures as here shown as against any such; in other words, that, based on the experience of the health authorities as it was stated to be, it is reasonably probable that a person found to be of the class mentioned is so infected with such disease. If the health authorities rely on the claim that the person quarantined is a prostitute and hence likely to be afflicted with disease, then the burden is on the quarantine officers to establish the proof of the claim that the accused is of the class and character mentioned. If such person has been legally convicted of being of such class and character, the record of conviction may be relied on to establish the important fact. In the absence of such conviction, the burden will be with the health authorities to establish the fact by sufficient evidence; for it is the existence of that condition in the person suspected that furnishes the ground for the belief, as an inference only, that the disease exists. It will not do to allow the inference of probable cause to be drawn from a mere suspicion.—*J. A. M. A.*

HOW CONGRESSMEN FROM THE VARIOUS STATES VOTED ON THE SHEPPARD-TOWNER MATERNITY BILL

OFFICIAL LIST OF MEMBERS OF THE HOUSE OF REPRESENTATIVES OF THE UNITED STATES AND THEIR PLACES OF RESIDENCE

Sixty-Seventh Congress.....November 21, 1921
 Republicans in roman (301); Democrats in *italic* (132); Socialist in SMALL CAPS (1). Those marked * served in the Sixty-sixth Congress. Those marked † served in a previous House. Whole number sitting, 434. Vacancies (1): Illinois (at large). Total number, 435.

Key to voting.

"Yes" in parenthesis after the name means voted for the bill.
 "No," in parenthesis after the name means voted against the bill.

"Yes, paired," Congressman was paired with another Congressman, and voted for the bill.

"Not voting" in parenthesis means did not vote at all.

Alabama

1. *John McDuffie** (Yes).....Monroeville
2. *John R. Tyson* (Yes, paired).....Montgomery
3. *Henry B. Steagall** (Yes).....Ozark
4. *Lamor Jeffers*† (Yes).....Anniston
5. *William B. Bowling** (Yes).....Lafayette
6. *William B. Oliver** (Not voting).....Tuscaloosa
7. *Lilius B. Roincy** (Not voting).....Gadsden
8. *Edward B. Almon** (Yes).....Tuscumbia
9. *George Huddleston** (Yes).....Birmingham
10. *William B. Bankhead** (Yes).....Jasper

Arizona

AT LARGE

1. *Carl Hayden** (Yes).....Phoenix
2. *William J. Driver* (Yes).....Osceola
3. *William A. Oldfield** (Yes).....Batesville
2. *John N. Tillman** (Yes).....Fayetteville
4. *Otis Wingo** (Yes).....DeQueen
5. *Hence M. Jacowoy** (Yes).....Dardanelle

6. *Chester W. Taylor* (Yes).....Pine Bluff
7. *Tillman B. Parks* (Yes).....Hope

California

(A LOOTED STATE)

1. *Clarence F. Lea** (Yes).....Santa Rosa
2. *John E. Raker** (Yes).....Alturas
3. *Charles F. Curry** (No).....Sacramento
4. *Julius Kahn** (Not voting).....San Francisco
5. *John I. Nolan** (Not voting).....San Francisco
6. *John A. Elston** (Not voting).....Berkeley
7. *Henry E. Barbour** (Yes).....Fresno
8. *Arthur M. Free* (Yes).....San Jose
9. *Walter F. Lineberger*s (Yes).....Long Beach
10. *Henry Z. Osborne** (Yes).....Los Angeles
11. *Philip D. Swing* (Yes).....El Centro

Colorado

1. *William N. Vaile** (Yes).....Denver
2. *Charles B. Timberlake** (Yes).....Sterling
3. *Guy Z. Hardy** (Yes).....Canon City
4. *Edward T. Taylor** (Not voting).....Glenwood Springs

Connecticut

(LOOTED STATE)

1. *E. Hart Fenn* (Yes).....Wethersfield
2. *Richard P. Freeman** (Not voting).....New London
3. *John Q. Tilson** (Not voting).....New Haven
4. *Schuyler Merritt** (Yes).....Stamford
5. *James P. Glynn** (Yes).....Winsted

Delaware

AT LARGE

- Caleb R. Layton* (No).....Georgetown

Florida

1. *Herbert J. Drane** (Not voting).....Lakeland
2. *Frank Clark** (Not voting).....Gainesville
3. *John H. Smithwick** (Yes).....Pensacola
4. *William J. Scors** (Not voting).....Kissimmee

Georgia

1. *James W. Overstreet** (Yes).....Sylvania
2. *Frank Park** (Yes).....Sylvester
3. *Charles R. Crisp** (Yes).....Americus
4. *William C. Wright** (Not voting).....Newman
5. *William D. Upshaw** (Yes).....Atlanta
6. *James W. Wise** (No).....Fayetteville
7. *Gordon Lee** (No).....Chickamauga
8. *Charles H. Brand** (No, paired).....Athens
9. *Thomas M. Bell** (Not voting).....Gainesville
10. *Carl Vinson** (Yes).....Milledgeville
11. *William C. Lanford** (Yes).....Douglas
12. *William W. Lonsen** (Yes).....Dublin

Idaho

1. *Burton L. French** (Yes).....Moscow
2. *Addison T. Smith* (Yes).....Twin Falls

Illinois

1. *Martin B. Madden** (Not voting).....Chicago
2. *James R. Mann** (Not voting).....Chicago
3. *Elliott W. Sproul* (Yes).....Chicago
4. *John W. Rainey** (Yes, paired).....Chicago
5. *Adolph J. Soboth** (Not voting).....Chicago
6. *John J. Gorman* (Not voting).....Chicago
7. *Mr. Alfred Michaelson* (No, paired).....Chicago
8. *Stanley H. Kunz* (Not voting).....Chicago
9. *Fred A. Britten** (Yes).....Chicago
10. *Carl R. Chindblom** (Yes).....Chicago
11. *Ira C. Copley** (Not voting).....Aurora
12. *Charles E. Fuller** (Yes).....Belvidere
13. *John C. McKenzie** (No).....Elizabeth
14. *William J. Graham* (Yes).....Aledo
15. *Edward J. King** (Yes).....Galesburg
16. *Clifford Ireland** (Yes).....Peoria
17. *Frank H. Funk* (Yes).....Bloomington
18. *Joseph G. Cannon** (Yes).....Danville
19. *Allen F. Moore* (No).....Monticello
20. *Guy L. Shaw* (Yes).....Beardstown
21. *Loren E. Wheeler** (No).....Springfield
22. *William A. Rodenberg** (Yes).....East St. Louis
23. *Edwin B. Brooks** (Yes).....Newton
24. *Thomas S. Williams** (Yes).....Louisville
25. *Edward E. Denison** (Yes).....Marion

AT LARGE

- Richard Yates* (Not voting).....Springfield
- (i)

Indiana

1. *Oscar R. Luhring** (Yes).....Evansville
2. *Oscar E. Bland** (Yes, paired).....Linton
3. *James W. Dunbar** (Yes).....New Albany
4. *John S. Benham** (Yes).....Benham
5. *Everett Sanders** (Yes).....Terre Haute
6. *Richard N. Elliott** (Yes).....Connersville
7. *Merrill Moores** (No, paired).....Indianapolis
8. *Albert H. Vestal** (Yes).....Anderson
9. *Fred S. Purnell** (Yes).....Attica
10. *William R. Wood** (Not voting).....Lafayette

11. Milton Kraus* (No).....Peru
12. Louis W. Fairfield* (Yes).....Angola
13. Andrew J. Hickey* (Yes).....Laporte

Iowa

1. William F. Kopp (Yes).....Mount Pleasant
2. Harry E. Hull* (Yes).....Williamsburg
3. Burton E. Sweet* (Yes).....Waverly
4. Gilbert N. Haugen* (Yes).....Northwood
5. Cyrenus Cole² (Yes).....Cedar Rapids
6. C. William Ramseyer* (Yes).....Bloomfield
7. Cassius C. Dowell* (Yes).....Des Moines
8. Horace M. Towner* (Yes).....Corning
9. William R. Green* (Yes).....Audubon
10. L. J. Dickinson* (Yes).....Algona
11. William D. Boies* (Yes).....Sheldon

Kansas

1. Daniel R. Anthony, jr.* (Yes).....Leavenworth
2. Edward C. Little* (Yes).....Kansas City
3. Philip P. Campbell* (Yes).....Pittsburg
4. Homer Roch* (Yes).....Marion
5. James G. Strong* (Yes).....Blue Rapids
6. Hays B. White* (Yes).....Mankato
7. J. N. Tincher* (Yes).....Medicine Lodge
8. Richard E. Bird (Yes).....Wichita

Kentucky

1. Alben W. Barkley* (Yes).....Paducah
2. David H. Kinchloe* (Yes).....Madisonville
3. Robert Y. Thomas, jr.* (No).....Central City
4. Ben Johnson* (Not voting).....Bardstown
5. Charles F. Ogden* (Yes).....Louisville
6. Arthur B. Rouse* (Yes).....Burlington
7. James C. Cantrill* (Yes).....Georgetown
8. Ralph Gilbert (No).....Shelbyville
9. William J. Fields* (Yes).....Olive Hill
10. John W. Langley* (Not voting).....Pikeville
11. John M. Robison* (Yes).....Barbourville

Louisiana

1. James O'Connor* (Yes).....New Orleans
2. H. Garland Dupre* (Yes).....New Orleans
3. Whitmell P. Martin* (Yes).....Thibodaux
4. John N. Sandlin (Yes).....Minden
5. Riley J. Wilson* (Yes).....Harrisonburg
6. George K. Favrot (Yes).....Baton Rouge
7. Landislas Lazaro* (Yes).....Washington
8. James B. Aswell* (Yes).....Natchitoches

Maine

1. Carroll L. Beedy (Yes).....Portland
2. Wallace H. White, jr.* (Yes).....Lewiston
3. John A. Peters* (Not voting).....Ellsworth
4. Ira G. Hersey* (Yes).....Houlton

Maryland**(LOOTED STATE)**

1. T. Alan Goldsborough (Yes).....Denton
2. Albert A. Blakeney† (Not voting).....Cantonville
3. John Philip Hill (No).....Baltimore
4. J. Charles Linthicum* (Yes).....Baltimore
5. Sydney E. Mudd* (No).....La Plata
6. Frederick N. Zihlman* (Yes).....Cumberland

Massachusetts**(LOOTED STATE)**

1. Allen T. Treadway* (Yes).....Stockbridge
2. Frederick H. Gillett* (Not voting).....Springfield
3. Calvin D. Paige* (No, paired).....Southbridge
4. Samuel E. Winslow* (Yes).....Worcester
5. John Jacob Rogers* (Not voting).....Lowell
6. A. Piatt Andrew (No).....Gloucester
7. Robert S. Maloney (Yes).....Lawrence
8. Frederick W. Dallinger* (Yes, paired).....Cambridge
9. Charles L. Underhill (No).....Somerville
10. Peter F. Tague* (No).....Boston
11. George Holden Tinkham* (Yes).....Boston
12. James A. Gallivan (No, paired).....Boston
13. Robert Luce* (No).....Waltham
14. Louis A. Frothingham (Yes).....Easton
15. William S. Greene* (Yes).....Fall River
16. Joseph Walsh* (No, paired).....New Bedford

Michigan**(LOOTED STATE)**

1. George P. Codd (Yes).....Detroit
2. Earl C. Michener* (Yes).....Adrian
3. J. M. C. Smith* (Yes).....Charlotte
4. John C. Ketcham (Yes).....Hastings
5. Carl S. Mapes* (Yes).....Grand Rapids
6. Patrick H. Kelley* (Yes).....Lansing
7. Louis C. Cramton* (Yes).....Lapeer
8. Joseph W. Fordney* (Not voting).....Saginaw, W. S.
9. James C. McLaughlin* (Yes).....Muskegon
10. Roy O. Woodruff† (Yes).....Bay City
11. Frank D. Scott* (Yes).....Alpena
12. W. Frank James* (Yes).....Hancock
13. Vincent M. Brennan (Yes).....Detroit

Minnesota

1. Sydney Anderson* (Not voting).....Lanesboro

2. Frank Clague (Yes).....Redwood Falls
3. Charles R. Davis* (Not voting).....St. Peter
4. Oscar E. Keller* (Not voting).....St. Paul
5. Walter H. Newton* (Yes).....Minneapolis
6. Harold Knutson* (Not voting).....St. Cloud
7. Andrew J. Volstead* (Yes).....Granite Falls
8. Oscar J. Larson (Yes).....Duluth
9. Halvor Steenerson* (Yes).....Crookston
10. Thomas D. Schall† (Yes).....Minneapolis

Mississippi

1. John E. Rankin (Yes).....Tupelo
2. B(ill) G. Lowrey (Yes).....Blue Mountain
3. Benjamin G. Humphreys* (Yes).....Greenville
4. Thomas U. Sisson* (No).....Winona
5. Ross A. Collins (Yes).....Meridian
6. Paul B. Johnson* (Yes).....Hattiesburg
7. Percy E. Quin* (Yes).....McComb City
8. James W. Collier* (Yes).....Vicksburg

Missouri**(LOOTED STATE)**

1. Frank C. Millsbaugh (Yes).....Canton
2. William W. Rucker* (Not voting).....Keytesville
3. Henry F. Lawrence (Yes).....Cameron
4. Charles L. Faust (Yes).....St. Joseph
5. Edgar C. Ellis† (Yes).....Kansas City
6. William O. Atkeson (Yes).....Butler
7. Roscoe C. Patterson (Yes).....Springfield
8. Sidney C. Roach (Not voting).....Linn Creek
9. Theodore W. Hukriede (No, paired).....Warrenton
10. Cleveland A. Newton* (Yes).....St. Louis
11. Harry B. Hawes (Yes).....St. Louis
12. Leonidas C. Dyer* (Not voting).....St. Louis
13. Marion E. Rhodes* (Yes).....Potosi
14. Edw. D. Hays* (Not voting).....Cape Girardeau
15. Isaac V. McPherson* (Yes).....Aurora
16. Samuel A. Shelton (Not voting).....Marshfield

Montana

1. Washington J. McCormick (Yes).....Missoula
2. Carl W. Riddick* (Yes).....Lewistown

Nebraska

1. C. Frank Reavis* (Yes).....Falls City
2. Albert W. Jefferis* (Not voting).....Omaha
3. Robert E. Evans* (Yes).....Dakota City
4. Melvin O. McLaughlin* (No).....York
5. William E. Andrews* (Yes).....Hastings
6. Moses P. Kinkaid* (Yes).....O'Neill

Nevada**(AT LARGE)**

- Samuel S. Arentz (Yes).....Simpson

New Hampshire

1. Sherman E. Burroughs* (Yes).....Manchester
2. Edward H. Wason* (Not voting).....Nashua

New Jersey**(LOOTED STATE)**

1. Francis F. Patterson, jr.* (Yes, paired).....Camden
2. Isaac Bacharach* (Yes).....Atlantic City
3. T. Frank Appleby (Yes).....Asbury Park
4. Elijah C. Hutchinson* (Yes).....Trenton
5. Ernest R. Ackerman* (Yes).....Plainfield
6. Randolph Perkins (Yes).....Woodcliff Lake
7. Amos H. Radcliffe* (Yes).....Paterson
8. Herbert W. Taylor (Yes).....Newark
9. Richard Wayne Parker† (No).....Newark
10. Frederick R. Lehlbach* (Yes).....Newark
11. Archibald E. Olpp (No).....West Hoboken
12. Charles F. X. O'Brien (Not voting).....Jersey City

New Mexico**(AT LARGE)**

- Nestor Montoya (Yes).....Albuquerque

New York**(LOOTED STATE)**

1. Frederick C. Hicks (Yes).....Port Washington
2. John J. Kindred† (No, paired).....Astoria
3. John Kissel (No).....Brooklyn
4. Thomas H. Cullen* (No).....Brooklyn
5. Ardolph L. Kline (No).....Brooklyn
6. Warren I. Lee (Yes).....Brooklyn
7. Michael J. Hogan (No).....Brooklyn
8. Charles G. Bond (Yes).....Brooklyn
9. Andrew N. Petersen (No, paired).....Brooklyn
10. Lester D. Volk* (No).....Brooklyn
11. Daniel J. Riordan* (No, paired).....New York City
12. MEYER LONDON† (Yes).....New York City
13. Christopher D. Sullivan* (Not voting).....New York City
14. Nathan D. Perlman* (Not voting).....New York City
15. Thomas J. Ryan (No).....New York City
16. W. Bourke Cockran† (No).....New York City
17. Ogden L. Mills (Not voting).....New York City
18. John F. Carew* (Not voting).....New York City
19. Walter M. Chandler† (Yes).....New York City
20. Isaac Siegel* (Yes, paired).....New York City
21. Martin C. Ansoorge (Yes).....New York City

22. Anthony J. Griffin* (No).....New York City
23. Albert B. Rossdale (Not voting).....Bronx
24. Benjamin L. Fairchild† (Yes).....Pelham
25. James W. Husted* (Yes).....Peekskill
26. Hamilton Fish, jr.* (Yes, paired).....Garrison
27. Charles B. Ward* (Yes).....Dehruce
28. Peter G. Ten Eyck† (Not voting).....Albany
29. James S. Parker* (Yes).....Salem
30. Frank Crowther* (Yes).....Schnectady
31. Bertrand H. Snell† (Not voting).....Potsdam
32. Luther W. Mott* (Not voting).....Oswego
33. Homer P. Snyder* (No, paired).....Little Falls
34. John D. Clarke (No, paired).....Fraser
35. Walter W. Magee* (Yes).....Syracuse
36. Norman J. Gould* (Not voting).....Seneca Falls
37. Alanson B. Houghton* (Yes).....Corning
38. Thomas B. Dunn* (Yes).....Rochester
39. Archie D. Sanders* (Yes).....Stafford
40. S. Wallace Dempsey* (Not voting).....Lockport
41. Clarence MacGregor* (Not voting).....Buffalo
42. James M. Mead* (Yes).....Lackawanna
43. Daniel A. Reed* (Yes).....Dunkirk

North Carolina**(LOOTED STATE)**

1. Hallett S. Ward (No).....Washington
2. Claude Kitchen* (Not voting).....Scotland Neck
3. Samuel M. Brinson* (Yes).....Newbern
4. Edward W. Pou* (Yes).....Smithfield
5. Charles M. Stedman* (Yes).....Greensboro
6. Homer L. Lyon (Not voting).....Whiteville
7. William C. Hammer (Yes).....Asheboro
8. Robert L. Doughton* (Yes).....Laurel Springs
9. Alfred L. Bulwinkle (Yes).....Gastonia
10. Zebulon Weaver* (Yes).....Asheville

North Dakota

1. Olger B. Burtness (Yes).....Grand Forks
2. George M. Young* (Yes).....Valley City
3. James H. Sinclair* (Yes).....Kenmare

Ohio**(LOOTED STATE)**

1. Nicholas Longworth* (Yes).....Cincinnati
2. A. E. B. Stephens* (Yes).....North Bend
3. Roy G. Fitzgerald (Not voting).....Dayton
4. John L. Cahle (Yes).....Lima
5. Charles J. Thompson* (Yes).....Defiance
6. Charles C. Kearns* (Yes).....Batavia
7. Simeon D. Feses* (Yes).....Yellow Springs
8. R. Clint Cole* (Yes).....Findlay
9. William W. Chalmers (Yes).....Toledo
10. Israel M. Foster* (Yes).....Athens
11. Edwin Ricketts* (Yes).....Logan
12. John C. Speaks (Yes).....Columbus
13. James T. Begg* (Yes).....Sandusky
14. Charles L. Knight (No).....Akron
15. C. Ellis Moore* (Yes).....Cambridge
16. Joseph H. Himes (Not voting).....Canton
17. W. M. Morgan (Yes).....Newark
18. Frank Murphy* (Yes).....Steubenville
19. John G. Cooper* (Yes).....Youngstown
20. Miner G. Norton (Yes).....Cleveland
21. Harry C. Gahn (Not voting).....Cleveland
22. Theodore E. Burton† (Yes).....Cleveland

Oklahoma

1. Thomas A. Chandler† (Not voting).....Vinita
2. Alice M. Robertson (No).....Muskogee
3. Charles D. Carter* (Not voting).....Ardmore
4. J. C. Pringle (Yes).....Chandler
5. F. B. Swank (Yes).....Norman
6. L. M. Gensman (Yes).....Lawton
7. James V. McClinton* (Yes).....Snyder
8. Manuel Herrick (Not voting).....Perry

Oregon

1. Willis C. Hawley* (Yes).....Salem
2. Nicholas J. Sinnott* (Yes).....The Dalles
3. Clifton N. McArthur* (No).....Portland

Pennsylvania**(LOOTED STATE)**

1. William S. Vare* (Not voting).....Philadelphia
2. George S. Graham* (No, paired).....Philadelphia
3. Harry C. Ransley* (Yes, paired).....Philadelphia
4. George W. Edmonds* (No).....Philadelphia
5. James J. Connolly (Not voting).....Philadelphia
6. George P. Darrow* (Yes).....Philadelphia
7. Thomas S. Butler* (Yes).....West Chester
8. Henry W. Watson* (Yes).....Langhorne
9. William W. Griest* (Yes).....Lancaster
10. Charles R. Connell (Yes, paired).....Scranton
11. Clarence D. Coughlin (Not voting).....Wilkes-Barre
12. John Reber* (No, paired).....Pottsville
13. Fred B. Gerner† (Yes).....Allentown
14. Louis T. McFadden* (No).....Canton
15. Edgar R. Kiess* (Yes, paired).....Williamsport
16. I. Clinton Kline (Yes).....Sunbury
17. Benjamin K. Focht* (Not voting).....Lewisburg

18. Aaron S. Kreider* (Not voting).....Annville
19. John M. Rose* (Yes).....Johnstown
20. Edward S. Brooks* (Not voting).....York
21. Evan J. Jones* (Yes).....Bradford
22. Adam M. Wyant (Yes).....Greensburg
23. Samuel A. Kendall* (Not voting).....Meyersdale
24. Henry W. Temple* (Yes).....Washington
25. Milton W. Shreve* (Yes).....Erie
26. William H. Kirkpatrick (Yes).....Easton
27. Nathan L. Strong* (Yes).....Brookville
28. Harris J. Bixler (Yes).....Johnstown
29. Stephen G. Porter* (Yes, paired).....Pittsburgh
30. M. Clyde Kelley* (Yes).....Braddock
31. John M. Morin* (Yes, paired).....Pittsburgh
32. Guy E. Campbell* (Not voting).....Pittsburgh

AT LARGE

- Thomas S. Crago* (No).....Waynesburg
- William J. Burke* (Yes).....Pittsburgh
- Anderson H. Walters* (Yes).....Johnstown
- Joseph McLaughlin† (Yes).....Philadelphia

Rhode Island**(LOOTED STATE)**

1. Clark Burdick* (Yes).....Newport
2. Walter R. Stiness* (Not voting).....Covesett
3. Ambrose Kennedy* (Yes).....Woonsocket

South Carolina

1. W. Turner Logan (Yes).....Charleston
2. James F. Byrnes* (Yes).....Aiken
3. Fred H. Dominick* (No).....Newberry
4. John J. McSwain (Not voting).....Greenville
5. William F. Stevenson* (Yes).....Cheraw
6. Philip H. Stoll* (Yes, paired).....Kingstree
7. Hampton P. Fulmer (Yes).....Norway

South Dakota

1. Charles A. Christopherson* (Yes).....Sioux Falls
2. Royal C. Johnson* (Not voting).....Aberdeen
3. William Williamson (Yes).....Oaconda

Tennessee

1. B. Carroll Reece (Yes).....Butler
2. J. Will Taylor* (Yes).....La Follette
3. Joe Brown (Not voting).....Chattanooga
4. Wynne F. Clouse (Yes).....Cookeville
5. Ewin L. Davis* (Yes).....Tullahoma
6. Joseph W. Byrns* (Yes).....Nashville
7. Lemuel P. Padgett* (Yes).....Columbia
8. Lon A. Scott (Yes).....Savannah
9. Finis J. Garrett* (No).....Dresden
10. Hubert F. Fisher* (Yes).....Memphis

Texas

1. Eugene Black* (No).....Clarksville
2. John C. Box* (Yes).....Jacksonville
3. Morgan G. Sanders (Yes).....Canton
4. Sam Rayburn* (Yes).....Bonham
5. Hutton W. Sumners* (Yes).....Dallas
6. Rufus Hardy* (Not voting).....Corsicana
7. Clay Stone Briggs* (Yes).....Galveston
8. Daniel E. Garrett† (Not voting).....Houston
9. Joseph J. Mansfield* (Not voting).....Columbus
10. James P. Buchanan* (Yes).....Brenham
11. Tom Connally* (No).....Marlin
12. Fritz G. Latham* (Yes).....Fort Worth
13. Lucian W. Parrish* (Yes).....Henrietta
14. Harry M. Wurzbach (Yes).....Seguin
15. John N. Garner* (Yes).....Uvalde
16. C. B. Hudspeth* (Yes).....El Paso
17. Thomas L. Blanton* (Not voting).....Abilene
18. Marvin Jones* (Yes).....Amarillo

Utah

1. Don B. Colton (Yes).....Vernal
2. Elmer O. Leatherwood (Yes).....Salt Lake City

Vermont

1. Frank L. Greene* (No).....St. Albans
2. Porter H. Dale* (Yes).....Island Pond

Virginia

1. Schuyler Otis Bland* (Yes).....Newport News
2. Joseph T. Deal (No).....Norfolk
3. Andrew J. Montague* (Yes).....Richmond
4. Patrick Henry Drewry* (Yes).....Petersburg
5. J. M. Hooker.....Stuart
6. James P. Woods* (Yes).....Roanoke
7. Thomas W. Harrison* (Yes).....Winchester
8. R. Walton Moore* (Yes).....Fairfax
9. C. Bascom Slomp* (Not voting).....Big Stone Gap
10. Henry D. Flood* (Yes, paired).....Appomattox

Washington

1. John F. Miller* (Yes).....Seattle
2. Lindley H. Hadley* (Yes).....Bellingham
3. Albert Johnson* (Yes).....Hoquiam
4. John W. Sumners* (Yes).....Walla Walla
5. J. Stanley Webster* (Yes).....Spokane

West Virginia

1. Benjamin L. Rosenbloom (Yes, paired).....Wheeling
2. George M. Bowers* (Yes, paired).....Martinsburg
3. Stuart F. Reed* (Yes).....Clarksburg
4. Harry C. Woodyard* (Yes).....Spencer
5. Wells Goodykoontz* (Not voting).....Williamson
6. Leonard S. Echols* (Not voting).....Charleston

Wisconsin

1. Henry Allen Cooper† (Yes).....Racine
2. Edward Voigt* (Yes).....Sheboygan
3. John M. Nelson† (Yes).....Madison
4. John C. Kleczka* (Yes).....Milwaukee
5. William H. Stafford† (No).....Milwaukee
6. Florian Lampert* (Yes).....Oshkosh
7. Joseph D. Beck (Not voting).....Viroqua
8. Edward E. Browne* (Yes).....Waupaca
9. David G. Classon* (Not voting).....Oconto
10. James A. Frear* (Not voting).....Hudson
11. Adolphus P. Nelson* (Yes).....Grantsburg

Wyoming**AT LARGE**

Frank W. Mondell* (Yes).....Newcastle

ROLL OF HONOR

THE 56 REPRESENTATIVES WHO VOTED AGAINST THE SHEPPARD-TOWNER BILL

Republicans in Roman.

Democrats in *Italic*.

*Paired against. Others voted against.

Republicans in Roman

Democrats in *Italic*

*Paired Against, Others Voted Against

California

Charles F. Curry

Delaware

Caleb R. Layton

Georgia

James W. Wise

Gordon Lee

*Charles H. Brand

Illinois

*M. Alfred Michaelson

John C. McKenzie

Allen F. Moore

Loren E. Wheeler

Indiana

*Merrill Moores

Milton Kraus

Kentucky

Robert Y. Thomas, Jr.

Ralph Gilbert

Maryland

John Phillip Hill

Sydney E. Mudd

Massachusetts

*Calvin D. Paige

A. Platt Andrew

Charles L. Underhill

Peter F. Tague

*James A. Gallivan

Robert Luce

*Joseph Walsh

Mississippi

Thomas U. Sisson

Missouri

*Theodore W. Hukriede

Nebraska

McElvin O. McLaughlin

New Jersey

Richard W. Parker

Archibald E. Olpp

New York

*John J. Kindred

John Kissel

Thomas H. Cullen

Adolph L. Kline

Michael J. Hogan

*Andrew N. Petersen

Lester D. Volk

*Daniel J. Riordan

Thomas J. Ryan

W. Bourke Cochran

Anthony J. Griffin

*Homer P. Snyder

*John D. Clarke

North Carolina

Hallett S. Ward

Ohio

*Charles L. Knight

Oklahoma

Alice M. Robertson

Oregon

Clifton N. McArthur

Pennsylvania

*George S. Graham

*George W. Edmonds

*John Reber

*Louis T. McFadden

Thomas S. Crago

South Carolina

Fred H. Dominick

Tennessee

Finis J. Garrett

Texas

Eugene Black

Tom Connally

Vermont

Frank L. Greene

Virginia

Joseph T. Deal

Wisconsin

William H. Stafford

SUMMARY

24 Republicans

15 Democrats

—

39 Voted Against

13 Republicans

4 Democrats

—

17 Paired Against

THESE ARE THE MEN

"Representing" the Looted States, who voted to take \$597,709.50 from the taxpayers of their own States

and give it to 38 other States and the Federal Children's Bureau under the Sheppard-Towner Bill.

Republicans in Roman.

Democrats in *Italic*.

Those marked * served in the 66th Congress.

Those marked † served in a previous Congress.

Republicans in Roman

Democrats in *Italic*

Those marked * served in the 66th Congress

Those marked † Served in a previous Congress

California

C. F. Lea*

J. E. Raker*

H. E. Barbour*

A. M. Free

W. F. Lineberger

H. Z. Osborne*

P. D. Swing

Illinois

E. W. Sproul

J. W. Rainey*

F. A. Britten*

C. R. Chindblom*

C. E. Fuller*

W. J. Graham*

E. J. King*

C. Ireland*

F. H. Funk

G. L. Shaw

W. A. Rodenberg*

E. B. Brooks*

T. S. Williams*

E. E. Denison*

Massachusetts

A. T. Treadway*

S. E. Winslow*

R. S. Maloney

F. W. Dallinger*

G. H. Tinkham

L. A. Frothingham

W. S. Greene*

Michigan

G. P. Codd

E. C. Michener*

J. M. C. Smith*

J. C. Ketcham

C. E. Mapes*

P. H. Kelley*

L. C. Cramton*

J. C. McLaughlin*

R. O. Woodruff†

F. D. Scott*

W. F. James*

V. M. Brennan

New Jersey

I. Bacharach*

T. F. Appleby

E. C. Hutchinson*

E. R. Ackerman*

R. Perkins

A. H. Radcliffe*

H. W. Taylor

F. R. Lehlbach

New York

F. C. Hicks*

W. I. Lee

C. G. Bond

M. London†

W. M. Chandler†

I. Siegel*

M. C. Anson

B. L. Fairchild†

J. W. Husted*

H. Fish, Jr.*

C. B. Ward*

J. S. Parker

F. Crowther*

W. W. Magee*

A. B. Houghton*

T. B. Dunn*

A. D. Sanders*

J. M. Mead*

D. A. Reed*

North Carolina

S. M. Brinson*

E. W. Pou*

C. M. Stedman*

W. C. Hammer

R. L. Doughton*

A. L. Bulwinkle

Z. Weaver*

Ohio

N. Longworth*

A. E. B. Stephens*

J. L. Cable

C. J. Thompson*

C. C. Kearns*

S. M. Fess*

R. C. Cole*

W. W. Chambers

I. M. Foster*

E. D. Ricketts*

J. C. Speaks

J. T. Begg*

C. E. Moore*

W. M. Morgan

F. Murphy*

J. G. Cooper*

M. G. Norton

T. E. Burton†

Pennsylvania

H. C. Ransley*

G. P. Darrow*

T. S. Butler*

H. W. Watson*

W. W. Griest*

C. R. Connell

F. B. Gerner†

E. R. Kiess*

I. C. Kline

J. M. Rose

E. J. Jones*

A. M. Wyant

H. W. Temple*

M. W. Shreve*

W. H. Kirkpatrick

N. L. Strong*

H. J. Bixler

S. G. Porter*

M. C. Kelly*

J. M. Morin*

"FOR 'PUBLIC WELFARE' READ 'PUBLIC PLUNDER:'"

Of the 21 members of the Interstate and Foreign Commerce Committee that reported out the Sheppard-Towner bill unanimously, nine are Representatives of looted States:

Samuel E. Winslow (R.), Massachusetts.

James S. Parker (R.), New York.

John G. Cooper (R.), Ohio.

Edward E. Denison (R.), Illinois.

William J. Graham (R.), Illinois.

Evan J. Jones (R.), Michigan.

Carl E. Mapes (R.), Michigan.

Clarence F. Lea (D.), California.

Harry B. Hawes (D.), Missouri.

These men voted to allow the Federal government to take \$597,709.50 from the taxpayers of their own States the first year, and \$470,237.72 subsequent years, or \$2,478,660.38 in five years to distribute for "public welfare" in other States!

Dec. 15, 1921.

WOMAN PATRIOT.

THE DANGERS AND DUTIES OF THE HOUR*

Address Delivered at the Banquet of the Medical Society of New Jersey's Annual Meeting at Atlantic City, June, 15, 1921.

HOBART A. HARE, M.D., LL.D.

PHILADELPHIA, P.A.

Professor of Therapeutics and Diagnosis in the Jefferson Medical College

The title of my address is taken from one by Dr. William Goodell, a graduate of Jefferson College, but who was for many years a professor in the University of Pennsylvania. It was entitled the "Dangers and Duties of the Hour." These today are so varied that it is impossible for me, in the few minutes that I can detain you, to take all of them into consideration; but I shall speak of a few of them.

As we all know, there is a curious condition of unrest and lack of solidarity in the world at present. There is an existent idea that all men should get something but give nothing for it. Some men have the belief that they were born into this world to reform everybody else with the idea of standardizing everything we touch and do. Our food is standardized; our drugs are standardized; our forms of medical practice are standardized. They say we shall do this or that. They standardize our hospitals, whether in a town of five thousand, or in a city of two million inhabitants. They are saying to free-born American citizens, "If you are going to be in Class A, you must do what we say, and if you do not do what we say we will publish your name as belonging to Class B." Often you find that the instigators of these measures belong to one of two classes: they are either men who have not made a success of practice and are running off on some side line which they are free to follow, or, because of some fault in their mental structure, so to speak, they go about devoting themselves to the task of trying to direct their successful brethren. They have wild ideas, and decide that the rest of the medical profession must be guided by what they say.

Long-haired men and short-haired women go to Washington and lobby. They buttonhole Senators and Representatives, and make them believe that there is a real demand for what they ask; and the Senators and Representatives pass a law to get rid of them. As a celebrated politician said, when I protested against a certain law being put through, "You do not know much about these things." I said, "I do not; but what I do know, I hate like the devil." He said, "This

bill is going through, and will be signed, but the amount of money that will be appropriated to enforce it will be so small that it will not amount to anything. That will get rid of the long-haired men and the short-haired women; if we do not think the bill is a good one, we do not make a large enough appropriation to enforce it," but a real danger exists for these people are now attempting to tell us how to live while we are trying to make our living.

We find members of our profession, with great enthusiasm, many of them conscientiously believing in the correctness of their views, advocating propositions by which medical men will become mere hacks by reason of laws supposed to help the people. If we do not look out we will fall into the position of the panel doctor of Great Britain. I heard the story of a poor panel doctor in London who is paid less than one of their bus drivers. In writing a prescription for one of his poor patients, he ordered twelve capsules, but the patient took only eight. What do you think happened? A couple of politicians that controlled that particular district called the poor fellow up before them, criticised him, tried him, and finally fined him because he had put the city to the expense of putting up four capsules more than the patient needed. The men who did this were commonly known as "Bath House John" and "Hinkey Dink."

When the medical profession permits itself to resort to health centers and poor law clinics, it is being euchred out of its own. It is deceived by a star, which is going out as soon as its members try to grasp it. Group practice, which is a much more ethical procedure, is dangerous. Some of those who know the results of group practice describe it in this way: A man forms a "group" which begins to touch the borderline of non-ethics, because they are going to work as a bunch and get all the business or trade, that they can each for the other. After this has been going on for a while, the man who formed the group, and considers himself the head of it, finds that a large part of the patients are going to one of the other members of the group, because they like him better than himself. Jealousy is aroused in the group and the group falls apart. One man says that he was inadequately paid; another has failed to get his percentage; and the fourth says that the first man hogged the whole thing.

Is there anything in the practice of medicine carried on in that way? No. Practice must depend on what the man is himself. There cannot be a department store arrangement in the practice of medicine, because it is a profession and not a business. In the former you are dealing with the sick who depend on you to be human and humane, but in business the principle is caveat emptor, let the buyer beware.

There are other things closely related to the practice of medicine and to the great economic problems, such as the Pure Food and the Drug Act. Under the Harrison Act, they have no right to tax us three dollars a year, so they call it a license. In other words, a legitimate practitioner is taxed because he uses morphine, or other pain removing drug, for a

*Reprinted from Journal of The Medical Society of New Jersey, Dec., 1920.

patient who is in agony. Why not fine the life-saving squad each time it brings a man ashore? They do not use the dollars they collect for the uplift of the profession, nor do they use the three hundred thousand dollars or more for the benefit of people who failed to get the morphine when they needed it. On the contrary, it is not spent for anything that has any connection with the medical profession or suffering humanity. It is a gouge, and should not be permitted. It is our fault that this is permitted.

Some of us say, "No one is interfering with us"; then suddenly we wake up and find this Harrison Act or the Volstead Act is jammed down our throat. This happens to you and it happens to me. When I want to get a license so that I might prescribe some whiskey for a dear old lady of ninety, on whom it acts better than anything else in smoothing the rough path of old age, I was handed a blank to fill out and told I must state whether I was an allopath or a homeopath. I said, "I am neither." The clerk said, "You must be one or the other." I said, "I am a regular practitioner of medicine. I will do anything for anybody that I think will do any good. Why should I be called an allopath?" He said, "If you are a homeopath, you get a permit for sixteen gallons; but if you are an allopath, you only get a permit for three." It looks as if the homeopaths had been able to convince the authorities at Washington that like cures like, but the prohibition officer said that they use the alcohol to make their tinctures.

Where are we, that because a man chooses to call himself a homeopath, he can get sixteen gallons, and because he calls himself a regular practitioner, he is limited to three gallons? Is this a free country, under these circumstances? I think not. This is because we neglect the dangers and duties of the hour.

There is a large Chiropractic College in Iowa which graduates more chiropractors in a year than all the medical schools in the United States graduate regular physicians in a year. The other day, a man, a supervisor, said that he had a boy that he thought would like to study medicine. He did not know anything about medicine. That is the trouble with the laity. They do not know anything about medicines. If you give them an ointment and it cures them, they think you are a great doctor but if you talk to them of a polymorphonuclear count, they do not know what you mean. This man made this cold-blooded proposition: He said, "I am a man with a large family, and cannot afford to spend much money for the education of my boy. I have been looking into the matter and find that if he studies medicine, it will be five or six years before he earns a dollar; but if he goes to a chiropractic place, he will make money in a year or eighteen months." It was true. There was no use in arguing with him, or saying, "You ignorant fool; your boy is probably of the same character as you, and ought to be a chiropractor."

I recently visited a town not far from here, where there was a grocery store on one corner, and a store of another kind catcornered from it. These stores were the homes of two boys who had wanted to

study medicine. One boy spent four years studying before he graduated. The other became an osteopath, and was practising for four years before the other boy came back with his sheepskin and from his hospital service. From the standpoint of fathers, the one who became an osteopath and an early money-maker did the wisest thing. You cannot correct this view by defamation or making fun of it. You can correct it only by an educational campaign.

Now, as to the best means of opposing this danger to the people rather than to ourselves: It is not by going to the Legislature and fighting it on the ground that it is some form of irregular practice. The best method is to educate the laity, so that they will recognize that these various peculiar cults and schools never do anything except for one purpose, as has been illustrated on this stage tonight. The laity do not know that almost every man in the medical profession of the United States does fifty per cent. of his work for nothing, as I happen to know from the investigations that I have made. The way to combat quackery is not as two camps engaged in commercial pursuits would try to correct it, but by a process of education.

Not long ago, I had an amusing experience, when a patient of mine went to the altar of a foreign God. She told me that she had been under the care of a certain osteopath, and said, "I hope you do not mind." I said, "No; the more he practises, the more I get," "Isn't that funny," she remarked, "that is just what he said about you!" I mention this joke on me because it illustrates the fact that you cannot do anything in the way of opposition except by education. A bank president in Philadelphia was told by a quack that he could cure him of cataract by reducing a dislocated spine. He does not know medicine, although he knows law. He should have enough education to know that he could not be cured of cataract without a surgical procedure. He must be educated, so that he will not be fooled.

I have been rather diffuse in my remarks tonight; but I told you when I began that the topic was a large one to cover. After all, what does this topic mean? It means that the dangers and duties of the hour require that the New Jersey State Medical Society, and every other State Medical Society, should do as this Society has done: Charge as a phalanx, and fight not only against the outsiders, but also against the small group inside.

In my opinion, the present organization of the American Medical Association has certain serious objections. In the old days, when there was a meeting, all of the men coming from a certain State got together and acted as a group representing that State, to put through such legislation for that State or the country as seemed wise. When the association got larger, it was decided that there must be a House of Delegates, and a comparatively few rule this, when you consider the number of men represented. The State of Pennsylvania has only six or seven delegates; the State of New York, nine; the State of New Jersey, three. This House of Delegates meets,

and what is it made up of? It is made up always, of course, of men who are worthy members of the medical profession; but they are not usually chosen as members of the House of Delegates because they know anything about the business that is going to be transacted. On the contrary, the State Society appoints them as delegates because they are good fellows, because they are going to the meeting any way, or for some other reason. They go to the American Medical Association meeting, and do not know anything about the business to be transacted or the problems to be discussed, and somebody gets up and says that the Council on So-and-So recommends the adoption of the following resolution—perhaps that alcohol is never of value as a drug, and is always harmful (which is ridiculous, because it is untrue and it is no more deleterious than any other drug). "All in favor of this resolution, please say 'Aye'" and Dr. Jones of Rural Lake and Dr. Smith of Tunk Town shout "Aye," and it is telegraphed all over the land that the American Medical Association has passed this resolution, and that thousands of the medical profession assert as a body that alcohol is always a poison, and never of value as a drug. The newspaper does not say that a large minority voted against this resolution, or that a small majority voted for it, but it goes out as the statement of the whole medical profession, although the section made up of pharmacologists who devote their lives to the study of the action of drugs protested against such action being taken.

What then are we to do? We must at one and the same time preserve the rights of the individual and maintain the rights of the profession as a mass. While we are busy with the sick we must remember that there are others who are busy with our affairs and should be watched. There is too much influence exercised by an active small minority and too little by an inert great majority. The latter must be more active in asserting their beliefs and wishes.

CRITICISM OF MEDICAL SCHOOLS.

The annual report of Dr. Nicholas Murray Butler, President of Columbia University, contains a serious criticism of medical teaching, both in relation to the expense involved and the departure from the earlier conception of the function of medical colleges. He predicts that if present methods continue, the public will not sustain these institutions. He characterizes medical teaching as the "spoiled child of education," and charges that medical education is about half a century behind other forms of higher instruction. His interpretation of this condition is that it is due to the intellectual isolation of the medical profession, for since the practitioner is so busy with the exacting details of his work, and his associations are very largely limited to his companions in the same calling, medical men become provincial.

One solution, according to Dr. Butler, will result from the immediate association of the medical school and university in order that teachers and students

may come in daily contact with the workers in other fields. He suggests another reform, which consists in limiting the curriculum to teaching the essentials of medicine and increasing the number of students so that the expensive equipment shall not be restricted to preparing a small number of students for practice. The latter part of his contention is obviously sound, and many students of medical pedagogy have publicly expressed the same opinion. Billings and Bevan, a year ago, brought this idea forcibly before the conference on medical education in Chicago, and the general response was quite in harmony with this opinion.

It has seemed to many that the recommendation for standardization has led to a competition among medical colleges with the purpose of trying to ascertain how far the mental capacity of students may be stretched to meet the exacting and comprehensive problems of special departments. Although some egotistic advertisers claim to be specialists in all departments of medicine, a sane man would not believe that even a well equipped medical school could develop the mind of a student, or indeed, that of any other person, so that he would be regarded as a specialist in even one or two departments of medicine through study covering a four-years course, even with a hospital year added. Undergraduate instruction in the specialties should be limited to an endeavor to give the student a general idea of the pathology met with in each particular field, and a familiarity with such therapeutic measures as every man in general practice may be called upon to employ.

Our medical schools should realize that there is a moral obligation to meet the needs of the public, and if the need is to be met, it must be through the training of practitioners of general medicine, as well as of specialists. To do this, the major effort should be to teach anatomy, physiology, ordinary biochemistry, pathology, pharmacology, general internal medicine, general surgery and *obstetrics*, and no man should be given a degree until he has first demonstrated reliable efficiency in these subjects *at the time of his graduation*. State examining boards are often reminded of the fact that an applicant cannot be expected to remember the underlying principles on which practice is founded. It is no unusual thing for a recent graduate to say that he was not interested in one subject, but that he had concentrated on others.

This does not mean that specialists should not be trained—far from it; but the faculty of a medical school may properly estimate the capacity of a student, and to those indicating aptitude for special study and training, suggest that, after having shown creditable proficiency in the fundamental sciences and understanding of the practical application of internal medicine, surgery and *obstetrics*, then, and only then, should they be encouraged to take up the study of a specialty.

If medical schools would resolutely adopt this policy the public would be the gainer, and specialties would not lack for devotees.

The profession as a whole appreciates the great

service rendered by specialists. It is, however, possible that the exact science of the specialist has tended to obscure the glory of the man whose case cannot always be cured by science, but who must employ the art of medicine in the human problems of life. His judgment, understanding and faith may keep his patient well or, in some instances, he may have to carry on the work of alleviation where the specialist, with all his power for good, has been impotent.

Specialists are indispensable. The well-educated, honorable and judicious general practitioner is needed today as much as ever. Will our medical schools try to supply this latter type?—*Boston M. & S. Journal*, January, 1922.

IS THE GOVERNMENT LETTING DOWN THE BARS TO QUACKERY?

CHIROPRACTIC AND THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

DOCTOR, WHAT DO YOU THINK OF IT?

What does the Medical Profession think of this governmental letting-down of the bars to quackery? What have the medical services of the Army and Navy, the Public Health, or the American Medical Association done in protest against it?

The senate committee appointed to investigate government activities for the relief of former service men made, about the last of October, a report that was sweeping in its criticism of many things and its condemnation of others, inclusive of some hospitals. Among other recommendations it suggested the elimination of politics from appointments, cancellation of certain contracts, reduction in personnel and the necessity for a get-busy management of affairs; and all of this largely due to the fact, as reported, that only 5,050 ex-soldiers have been rehabilitated out of 388,000 applicants. A part of the fault is due to unsuitable and poorly managed hospitals, some of them, it is alleged, selected and the personnel appointed for political reasons. This latter charge may or may not be justified, but if it is warranted by the facts, it is simply another instance of the fact that no sort of medical or hospital service can be effective when politically controlled.

The American Physician does not care to embarrass any governmental board in its activities but we have been on the ground in Washington sufficiently, and have talked with capable physicians in governmental activities rather directly to the point, and hence we are in position to assert that these physicians have been embarrassed by political pressure in their work, and therefore it is not at all remarkable that special investigation by the senate finally became necessary and revealed the fact that too much politics was at the bottom of the whole trouble. Certainly a senate committee would not so report without abundant justification.

HEALING AND ALLEGED HEALING.

While it is not our purpose to minimize in the least any criticism directed against certain hospitals and

their medical management, we do wish to submit a verbatim copy of a Government bulletin which sheds a little light on the subject of what politics does when it mixes up with medical affairs. This bulletin is as follows:

Information No. 97

Information No. 81 rescinded hereby.

FEDERAL BOARD FOR VOCATIONAL EDUCATION.

Division of Vocational Rehabilitation

Washington, D. C.

July 14, 1921.

From: Assistant Director for Vocational Rehabilitation

To: All District Vocational Officers and Others Concerned

Re: Chiropractic, Training in
(Of. Information Nos. 91 and 94.)

1. Under the conditions set forth below, district vocational officers are authorized to place men in training for the practice of chiropractic. Some districts, it will be noted, have optional opportunities.

Districts Nos. 1, 2, 3 and 4—

Eastern College of Chiropractic, Newark, N. J.

Districts Nos. 4, 5, 6 and 7

Universal Chiropractic College, Pittsburgh, Pa.

Districts Nos. 7, 8 and 14

National School of Chiropractic, Chicago, Ill.

Districts Nos. 9, 11, 12, 13 and 14

Palmer School of Chiropractic, Davenport, Iowa.

Districts Nos. 10 and 13

St. Paul College of Chiropractic, St. Paul, Minn.

2. Before placing a man in training for the practice of chiropractic, the district vocational officer shall secure a written statement from the man, embodying the following points:

(a) That he is choosing his course on his own initiative and responsibility, and will not in any way look to the Board for assistance in placement.

(b) That chiropractic may be legally practiced in his state of residence or in the state in which he contemplates residing after the completion of his course. In the latter instance satisfactory evidence will be required to support trainee's intention of change of residence.

3. District Vocational officers are directed to secure from the Medical Examining Board of each state in their districts, a statement as to the legal status of a practitioner of chiropractic. A copy of this statement must be filed in Central Office on or before August 10. This

Information No. 97

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is asked for in order that Central Office may have complete information concerning legislation that has become effective during the year 1921. No man should be put in training for the practice of chiropractic who is a resident of a state in which such practice is prohibited by law except under the condition stated in subparagraph (b) under paragraph 2 hereof.

4. Whenever possible men should be dissuaded from taking up this work, but those who insist upon

being trained for it will be assigned in accordance with paragraph 1 hereof. If they desire to be transferred to a designated school otherwise than as listed, they must pay their own traveling expenses.

5. The district vocational officer Dist. No. 8 will negotiate a contract at regular rates with the National School of Chiropractic, Chicago, Ill.; the district vocational officer, Dist. No. 10, will negotiate likewise with St. Paul's College of Chiropractic, St. Paul, Minn., and both district vocational officers, numbers 8 and 10, will provide all other district offices with catalogues of the two new schools designated herein. The regular procedure in regard to transfers will be followed, except as noted in paragraph 4.

R. T. Fisher,
Assistant Director for
Vocational Rehabilitation.

Doctor, note especially paragraph 4, which "lets the cat out of the bag" for it is stated to us by gentlemen in position to know, but not by officials, that this chiropractic training was forced on the Board by congressional pressure; and it is quietly hinted that there was much futile anger engendered by the fact that the hands of the Board were forced by politicians.

WE WONDER.

1. What do the medical services of the Army and Navy think of this governmental letting down of the bars to quackery?
2. What does the United States Public Health Service think of it?
3. What does the American Medical Association think of it, and what did it do to protest against it?
4. Doctor, what do you think of it?

A LESSON FOR US.

Some man is ambitious to be elected to the Legislature. He tells his physician, who is not interested and who smiles quietly to himself, believing that Mr. Man has no chance for election. Mr. Man approaches other physicians. Nothing doing!

Then a chiropractic is approached. Business of handshaking and good fellowship. Mr. Chiro lines up Mr. Man into his way of thinking and secures the active help of all chiropractics and their friends in the district. Furthermore, the Chiropractic Association advertises regularly in the newspapers, and says a good word to the editors for Mr. Man. Don't forget that Mr. Chiro is exactly the kind of man that loves to break in as a political worker, while Mr. M. D. seldom takes an active interest in politics.

Mr. Man is elected and becomes The Honorable Frank Man. Then, when a bill comes up in the legislature granting all sorts of powers to a Board of Chiropractic Examiners, what does the Hon. Frank Man do? Go ask the Federal Board for Vocational Education.—T. S. B.—*American Physician*, January, 1922.

PHYSICIANS ARE NOT TO BLAME FOR ADDICTION.

The enforcement of the Harrison law has practically removed any suspicion from the medical

profession from being involved in this traffic. Their interest in its suppression is that of all patriotic citizens who wish our people to progress in strength and health, instead of being enervated and debauched by these preventable means. No people of the community come so closely in contact with the deplorable results of drug addiction as do physicians. At the present time the profession takes a decidedly pessimistic and melancholy view of remedial measures. Efforts are constantly being made to devise methods of treatment which will make victims of the drug habit permanently cured. In time some method may be discovered which will be absolutely curative. The main reliance, however, in suppressing this national menace lies primarily in the prevention of its further extension. To accomplish this end every physician should exert his utmost endeavor.—*Northwest Medicine*, December, 1921.

IT IS TIME FOR ABOUT FIVE THOUSAND PROFESSORIAL RESIGNATIONS.

OUR MEDICAL SCHOOLS OVER-MANNED.

An army with too many officers and few privates is often played up in comic opera, but it actually exists in real life, much to the disadvantage of the army. Yet such a condition exists in our medical schools. Eliminating the nondescript schools and those giving only the first two years of a medical course, there are 14,132 medical students enrolled in the schools of the United States, and 7,589 professors, assistant professors, assistants, demonstrators, etc., to instruct these students, or 1.87 students to each teacher—one teacher to less than two students. What a situation! It is pedagogically ridiculous and economically wasteful.

There is almost no parallel to this situation in schools giving instruction along other lines, but it is actually growing worse in the medical schools. No wonder that medical education is costing too much and that our courses are unbalanced, as all of these specialist professors insist on giving lectures, demonstrations, etc., filling the hours with predigested smatterings of a lot of inconsequential and leaving insufficient time for things of greater weight and importance to the student.

This condition is largely due to a host of practitioners, few of whom are *real* teachers, crowding on to facilities to boost their own practices, and it is vastly unfair to the students. We have met three recent graduates lately who have just entered practice, and every one was studying therapeutics and materia medica, for they had suddenly discovered they knew almost nothing of these subjects and vitally needed to know them. These students are angry at their professors for failing to teach them the things they need in order to make a living from practice. It is time for about five thousand professorial resignations.—*The American Physician*, January, 1922.

REVOLUTION IS IN THE AIR

For many years, the leaders of the medical profession have been inculcating the doctrine that they ruled by divine right; that to criticise them or their methods was to strike a blow at the whole fraternity and should receive the unquestioning condemnation of the rank and file. But revolution is in the air and one of the striking instances is the controversy between *The Indiana State Medical Journal* and Dr. Hugh Cabot, Dean of the Medical School of the University of Michigan on the question of State Medicine by University domination. Dr. A. E. Bulson, Jr., does not take advantage of the editorial "WE" but signs his name to a red hot criticism. Dr. Bulson does not mince words and says:

"Neither you (Dr. Cabot) nor any member of the faculty can justly deny that the Medical Department of the University of Michigan has done more to pauperize the Community by granting gratuitous medical and surgical treatment to the well-to-do than any one institution or factor in the Middle West. In fact the action has been so flagrant, that it has been a common remark among Michigan doctors, as well as doctors in some contiguous states, that it is exceedingly difficult to secure even a very ordinary fee from many well-to-do people for the reason that those people claim that they can go to Ann Arbor and have their work done for nothing, with the hospital charges as their only expense. Furthermore, such practice on the part of your University helps to make it impossible to secure decent remuneration from the rich industrial organizations or insurance companies for any medical or surgical services rendered and I do not think that anyone will admit that those organizations should be an object of charity at the hands of the medical profession or even the State.

"Concerning my reference to the 'soft berth' perhaps that is taken in a manner not intended. I knew that you gave up a private practice that netted you more money than you will get out of your present position, thought I think you will agree that being the head of a great University, with a fixed salary that enables one to live more than comfortably, is in the minds of many, sufficient to counterbalance any loss sustained in giving up private practice. But what about the poor though competent doctor, who doesn't have such a position and has his income from private

practice unnecessarily and unfairly reduced in consequence of the competition of the University which brings about this discussion?

"The term 'State Medicine' has been applied rather loosely but I think it generally is conceded now that by 'State Medicine' is meant providing medical and surgical attention by the State to all who desire it and this in the end means wiping out private practice wholly or at least to a very large extent. Your scheme for furnishing 'Community Medical and Surgical service' by the members of the staff of your institution and a selected few outsiders, if I understand it correctly, is a step in the direction of State Medicine, in that it paves the way for the operation of a more comprehensive plan directly under the control of the State. Aside from this, it starts out by creating a sort of caste, in the medical profession, known to the public as such, which is bound to create dissensions and produce vicious results.

"I believe that I am safe in saying that practically *all* of the visionary but impractical, if not wholly vicious schemes which tend toward the socializing of medicine owe their origin to medical men, erstwhile leaders in the medical profession, rather than to any lay person or to any lay organization. It is the so-called leaders like yourself who start innovations, sometimes with good intentions but more often with selfish ends of one kind or another in view. I hope the day has arrived, when every right thinking doctor in Michigan, through his voice as well as his vote will register his opposition to the various schemes for socializing Medicine and that will mean offering vigorous protests to some of the plans that some of us believe you have sanctioned and supported. Concerning this matter of criticizing the sponsors of detrimental innovations, as they affect the medical profession, permit me to quote from a letter to me, commenting upon the editorial to which you take exceptions, as follows: 'There is no position in America so high, but that its occupant can be criticized for his words and actions. It has become the habit in America to consider the so-called leaders of the medical profession as immune from criticism by their professional brethren — LET US CHANGE THAT HABIT.'"

—*Indiana State Medical Journal*, Nov. 15, 1921.

WHEN SCIENCE CONQUERS IT WILL SPEAK WITH THE TONGUE OF THE RE- SPONSIBLE PHYSICIAN.

SCIENCE SO-CALLED

Certain Chicago psychiatrists have admitted visitors to their workshop.

Here—they point out—is the prize bad boy of the north side. The time was when he'd even play truant to go fishing. Now he can't even bear to look at the lake. Over there is a moron—or was one. He stopped growing mentally at 11 years of age. Thanks to the factory treatment he thinks now like a man 87 years old whose interest in the chorus is experiencing an Indian Summer. Again, before us, is a genius who with a cigar box, four spools and as many nails has constructed a toy cart good enough for anyone. His folks used to call him an idiot.

The impression brought away by the visitor is that this new, applied, capitalized, commercialized psychology is going to make the world all over. Soon there will be no human scrubs. In time defectives will be turned over to the city psychiatrists and be entirely reassembled. The visitors have lost no time themselves in sending the gladsome news out into the marveling world.

Yet we don't know. There is a familiar sound about these high promises. Grandfather used to read much the same things out loud from the inner corners of the newspapers and say that he just must get that medicine, the testimonials were so entrancing. That was a great many years ago. Still, for all the wonderful discoveries that in those days were put within the reach of all for only one dollar a bottle, or a case of a dozen bottles for ten dollars, humanity hasn't been revised, restored, refurbished to the likeness of giants, physical and mental. The Chicago psychiatrists use different methods than did the old quacks, but their language is a good deal, the same.

It is our notion, possibly mistaken, that when science conquers the problem of wayward and imperfect mentality it will speak with the tongue of the responsible physician and not that of the circus ground medicine man.—Detroit Journal, Jan. 2, 1922.

MEDICINE IN NINETEEN FIFTY

THE TREND OF MEDICINE

Time, 1950

(*Suggestions for Ads., for Dept. Stores and Chain
5 and 10s.*)

Slogan.

"CONSULT OUR DOCTORS AND TAKE TREATMENT."

See our list of desirable tonics and cough cures—
A variety of colors and flavors.

Guaranteed to Please

Our medical department cannot afford to be overlooked. Get our terms and see our specialists.—
You cannot get lower.

You can be X-rayed, spectacled, splinted, osteopathed, chiropracted, massaged, dosed and bossed at attractive rates—3d aisle, right, in the (a) basement.

Leave or send your mouth-measure for a full set of false teeth with Hamburger attachments.

All mail orders promptly filled.

Why delay? See us and discover your ills. Don't remain in crass ignorance and set the whole house in an uproar by falling down stairs and breaking your neck at the age of 92, when by consulting us, it can be made easier for everybody by passing away at an earlier and probably more convenient time, in bed.

Staff cabaret and entertainment every Tuesday evening.—Rhode Island Medical Journal.

AUTOMOBILE EXHAUST GASES DANGEROUS

The United States Public Health Service has endorsed a publicity campaign in reference to the danger from carbon monoxide poisoning in exhaust gases from automobile engines. In this connection the following warning has been issued:

Investigations made by the United States Government show that gases dangerous to life are frequently present in the exhaust gases from automobiles. These gases are often present in sufficient quantities to produce disagreeable symptoms, or even cause death. The effect of these gases is produced very quickly, usually before the victim realizes the danger.

Observe the following precautions at all times:

1. Always open the garage door before starting the engine.
2. Do not allow the engine to run for any length of time in a closed garage.
3. Do not work near the exhaust of a running automobile engine.
4. Special precautions as to ventilation are necessary when in garage pits.
5. When the exhaust is used for heating a closed car, the system must be free from leaks.

Persons overcome by exhaust gases from automobiles and gasoline engines should be removed to fresh air and artificial respiration performed until a physician arrives.

SUCH IS DISTINCTLY ADVERSE TO THE BEST INTERESTS OF MEDICAL MEN

The Bronx County (New York) Medical Society at a meeting held on November 16, 1921, unanimously adopted the following Resolutions and Recommendations:

RESOLVED, That we protest against the abolition of the Poor Clinic by Cornell University and against the entrance of the university into commercial medicine for a profit.

That the establishment of Pay Clinics by a university is inimical to the best interests of the public at large and of the medical profession in particular because such clinics are in direct

competition with the physicians who practise in the immediate and remote vicinity.

That the offer of cooperation by the university with the general practitioner is a blind to beguile the latter to refer cases to them.

That we condemn the conduct of the physicians who permitted their names and their positions to be used for such crass newspaper publicity as the advance announcements contained.

That such advertisement is distinctly adverse to the best interests of medical men and to the code of ethics as established by the American Medical Association.

That we recognize that these very men will not and cannot offer their services to the patient but will merely act in an advisory capacity far from the clinic rooms.

That for all the above reasons we recommend that the respective county societies to which these men belong and under whose jurisdiction Cornell University Medical School exists shall take proper and fitting action to reprimand these men and the university and furthermore shall recommend to its members that they not accept positions in a dispensary that works to the economic detriment of their brethren.

Yours fraternally,

I. J. LANDSMAN, M.D.,

Secretary,

391 E. 149th St., New York.

Public Health

OPINION ON QUARANTINE FROM ATTORNEY GENERAL

According to an opinion recently handed down by the Attorney General, it is within the power of the State Department of Public Health to declare that a state of limited quarantine exists in any municipality where an epidemic of smallpox has appeared or threatens to develop, and that under the terms of such limited quarantine it would be legal to require all persons about to travel on common carriers to produce evidence of protection against smallpox, either by reason of vaccination or of having had the disease. The opinion further states that the enforcement of such regulations can legally be required from local health authorities.

The opinion of the Attorney General in this matter came as a result of a request from the State Director of Public Health, who has some such action under contemplation because of lax quarantine conditions at certain points where smallpox has been more or less epidemic for the past few months.

NEW CLINIC FOR CRIPPLED CHILDREN ESTABLISHED.

At the request of local organizations, a new clinic for crippled children has been established by the State Department of Public Health at Kewanee. The clinic is conducted under the supervision of Dr. C. W. East, and is supported through the co-operation of a committee of local physicians, the Rotary Club, the Red Cross and local health departments. This brings the total number of such clinics that are now in operation throughout the state up to twenty-five.

CO-OPERATION IN PUBLIC HEALTH NURSING.

Closer co-operation, complete harmony of purpose, the best possible service to the public, no overlapping in effort or expenditure, were the objects of a conference that was held in Springfield on February 8, between representatives from the State Department of Public Health, the Central Division of the American Red Cross and the Illinois Tuberculosis Association. As a result of the meeting, a written agreement that was entered into by these agencies about a year ago was reaffirmed, and it is felt that the other objects were, in the main, accomplished.

PHYSICIANS FINED FOR NOT REPORTING BIRTHS.

Dr. H. E. Bowerman of Leaf River, Dr. Frank A. Olms of Hampshire and Dr. E. N. Scott of Hinsdale were recently fined \$5.00 each and costs for failing to report births that occurred in their practice, respectively. The complaint in each case was brought by the local state's attorney at the request of field agents of the State Department of Public Health. A number of other prosecutions for the same offense are pending.

Correspondence

DRAGOONING THE MEDICAL PROFESSION

THE A. M. A. ALCOHOLIC RESOLUTIONS BASED ON FANATICISM RATHER THAN FACTS

THERE IS AT THE PRESENT TOO MUCH CRACKING

THE WHIP BY THOSE WHO KNOW LESS

ABOUT WHAT THEY ARE TALKING

ABOUT THAN THOSE OVER

WHOM THE WHIP

IS CRACKED

To the Editors: The editorial in the February ILLINOIS MEDICAL JOURNAL condemning the use of the word necessity, rather than advisable, in the recent A. M. A. Referendum in the use of Alcohol is timely and to the point.

I think that the most note-worthy instance of

error on the part of the House of Delegates was the passage of the Resolutions of the New York meeting (if I remember correctly), to the effect that alcohol was never useful as a drug, and always deleterious. I am enclosing you a few pages from the A. M. A. Journal containing a protest on this adoption from Dr. Hobart A. Hare, Professor of Therapeutics and Diagnosis in Jefferson Medical College, Philadelphia. This protest was published in the *Journal A. M. A.*, July 21, 1917, page 226.

In this protest of Prof. Hare, he pointed out that every author of any importance claimed just the reverse and gave quotations from the writings of some members of the A. M. A. Committee on Pharmacy and Chemistry. Probably you saw the letter in the *Journal*.

You will recall that this action of the House of Delegates was taken in the face of the recommendation of the Section on Therapeutics that action be not taken; in other words, it ignored the very section which was supposed to have the greatest amount of knowledge concerning the point at issue.

This action on the part of the House of Delegates is not wrong because it is dealing with a social problem, but wrong because thereby the American Medical Association stultified itself. No so-called scientific body can pass a resolution based upon fanaticism which directly controverts scientific fact.

In the recent A. M. A. alcohol referendum published in the *Journal* it may be fairly suggested that the form of the question is intended to produce results which will back up the action of the House of Delegates. The use of the word "necessity" has doubtless made many physicians answer "no" when if the word "advisable" had been introduced they would have answered "yes." There are very few remedies that are so absolutely peculiar and specific in themselves that nothing can supplant them to the slightest degree.

So, too, the question as to whether one has ever seen death or suffering induced by deprivation of alcohol as a drug. This is a question which is practically impossible to answer, at least so far as death is concerned.

I recognize fully the excellent work along certain lines which the American Medical Association has produced, but things have come to such

a pass that there has been too much of the cracking of the whip by those who know less about what they are talking about than those over whom the whip is cracked.

Although this matter has nothing to do with the American Medical Association, you may have noticed in the *Journal* a list of drugs which the Committee on Revision of the Pharmacopeia propose to strike out. One of them is heroin. There is a bill before Congress to prohibit its importation and manufacture. If it is stricken out of the Pharmacopeia it will be removed from the legal list of drugs, and the fact that the Committee on Revision has stricken it out will be utilized to help this bill through Congress. This action is instigated by those who are fanatically desirous of protecting "rotters" and who have no regard whatever for worthy sufferers. It will not in the end benefit the "rotter" materially, because he is fundamentally wrong, but if the importation and manufacture of heroin is forbidden an immense number of worthy souls will suffer in consequence. We need all the pain-relieving remedies that we can have. This is another illustration of the profession being dragooned.

THE ACTION OF THE HOUSE OF DELEGATES OF THE A. M. A. ON THE ALCOHOL QUESTION

To the Editor: In the *Journal*, June 9, 1917, p. 1768, the following resolution appears as emanating from the Council on Health and Public Instruction:

WHEREAS, It is the unanimous opinion of the Council on Health and Public Instruction of the American Medical Association that alcohol has no drug value, either as a stimulant, as a tonic or as a therapeutic agent, and that it has no food value; and

WHEREAS, Its use as a beverage or as a therapeutic agent is detrimental rather than beneficial to the individual; therefore, be it

Resolved, That the House of Delegates of the American Medical Association, at its Sixty-eighth Annual Session, declares it is opposed to the use of alcohol by individuals either as a medicine or as a beverage; and be it further

Resolved, That its use in medicine is permissible only in the preparation and preservation of pharmaceutical products.

I wish to register a protest against this council dealing with a matter which is outside of its

sphere and which belongs to the Council on Pharmacy and Chemistry, which deals with matters therapeutic. The House of Delegates did not pass these resolutions but substituted:

WHEREAS, We believe that the use of alcohol as a beverage is detrimental to the human economy, and

WHEREAS, Its use in therapeutics, as a tonic or as a stimulant or as a food has no scientific basis; therefore be it

Resolved, That the American Medical Association opposes the use of alcohol as a beverage, and be it further

Resolved, That the use of alcohol as a therapeutic agent should be discouraged.

And defeated the following safe and sane resolution:

The Section on Pharmacology and Therapeutics instructs its delegates to the House of Delegates that it is the sense of this section that the question of the therapeutic value of alcohol which has been long in dispute remain yet undetermined, and that hasty action taken in the stress of present circumstances would not be wise, and would not reflect fully the best therapeutic and pharmacologic opinions.

Furthermore, while recognizing the possible need of prohibition of the use of alcohol as a measure of public safety, it would ask that the two questions be considered separately on their respective merits.

I wish still more to protest the action of the House of Delegates, although I am conscious that this protest may be considered bold. With the great question of "prohibition," or the social questions involved, it may be the province of this council or of the House of Delegates to deal; but there is a great difference between the action of alcohol taken when it is needed and its action taken when it is not needed. My protest, moreover, is based on the fact that such resolutions are hasty and do not represent careful consideration of the medical facts, and, furthermore, because I do not think that the House of Delegates has a right to pass dogmatic resolutions which differ absolutely from what thousands of members of the Association believe to be true. Such resolutions put in jeopardy any medical man who may prescribe alcohol with the honest belief that it does good in certain states of disease. His standing in court with this resolution presented to the jury might readily be impaired

if grief-stricken friends should sue him on the ground that he had used a harmful drug. It may be proper for the House of Delegates to express its belief that alcohol is abused as a medicine, but to say that its use in therapeutics as a tonic, or stimulant, or as a food has no scientific basis is not only unwise, but, in the opinion of many eminent medical men, untrue and not supported by the majority of evidence. Space does not permit of quotations, but it may not be out of place to quote from the last edition of Sollmann's "Manual of Pharmacology," particularly as Dr. Sollmann is an active member of the Committee on Pharmacy and Chemistry. On page 547, he says of alcohol:

"Its usefulness as a quickly acting stimulant can scarcely be doubted in the various forms of sudden circulatory collapse—syncope, exhaustion, hemorrhage, traumatic shock, snake venom, strychnin, aconite, veratrum poisoning."

And he recommends a dose of approximately 1 ounce of whisky or brandy, preferably hot, repeated every ten or fifteen minutes, according to effect. On the same page he says:

"The vasodilator effect may be useful in angina pectoris, and in chronic lesions of the heart small doses may be valuable to lessen the worries of the patient."

As to its value as a food, Sollmann says in discussing exhausting fevers:

"The beneficial effects are probably mainly nutrient, due to the direct *food-value of the alcohol* (italics his), and to the stimulation of the digestion and absorption of the food. The pulse becomes stronger and more regular." On page 549 he states that "if taken after exposure it prevents the tendency to congestion of internal organs," and, again, on the same page, he says, "Small quantities of alcohol, taken with meals, therefore, tend to have a favorable action on digestion." Finally, Sollmann states that "in chronic conditions good results might be expected in adynamic states where the circulation or tone are defective—in the course of convalescence from fevers or exhausting illnesses."

Dr. Cushny of London is the first corresponding member of the Council of Pharmacy and in his book, page 143, he says, when considering the food value of alcohol:

"The final result of all these investigations is that alcohol can take the place of some of the fats in the food and leads to the same economy

of protein as the ordinary non-nitrogenous constituents of the dietary."

On page 150 Cushny says:

"In sudden chill with tendency to fever alcohol is often of great benefit . . . Its efficacy would seem to be due to the relief of the congestion of the internal organs by the return of the blood to the skin."

Finally, it may not be out of place to quote Dr. Abraham Jacobi of New York, a recent president of the American Medical Association, who wrote in *American Medicine* for September, 1913, that after sixty years of practice spent among the sick only, and the recovering and the dying, he advocates the free administration of alcohol in grave septic cases, and cites a case of diphtheria, in a girl of 7, who was taking half a pint a day and for whom he ordered another half pint, and, again, the case of a boy of 3 years with formidable symptoms of mixed infection to whom he gave a pint of whisky daily, and he adds the significant words that he wishes his "readers to know that no amount of whisky will produce intoxication when its effect is wanted to combat sepsis." He does not attempt to explain the effects. He adds, "Let somebody explain; meanwhile, take the hint."

The matter may, perhaps, be thus summed up: 1. Alcohol is a powerful drug and, therefore, if used carefully, capable of doing good. 2. Thousands of physicians prescribe it in illness. 3. Great care should be exercised by a body of men acting as representatives of their colleagues in condemning dogmatically what many of their colleagues believe correct. 4. Such action may jeopardize the reputation of a professional brother. If the preambles of these resolutions are allowed to stand without protest, then, Dr. Jacobi and myself, along with a host of professional brethren, may find ourselves in jail for using an agent which is "detrimental" and, therefore, a poison, and likewise be sued for civil damages as well if we prescribe alcohol.

As I write this letter I am in receipt of a leukopenia produced, the white cells decreasing communication from a body interested in "prohibition," quoting the resolution of the Council on Health and Public Instruction, and asking that a letter be written to the authorities at Washington calling attention to this resolution. Indeed, it is requested that I telegraph the President confirming it.

I take it that the chief reason for the existence of the Association is to help its members and to exercise an influence which will aid in the growth of safe and sane judgment on all matters medical. I would respectfully urge that now, of all times, is the period when medical men should help balance the community by balancing themselves, and that the resolutions already quoted are not justified. Alcohol has been much abused as a drug, as have all powerful drugs; but that it has no drug value, no food value, and is detrimental when used as a therapeutic agent, I earnestly deny.

HOBART AMORY HARE, M. D.,
Philadelphia.

From the Journal of the American Medical Association, July 21, 1917, Vol. LXIX, pp. 226 and 227.—J. W. D.

WE MUST HAVE HARMONY, IF WE HAVE TO FIGHT FOR IT.

West Milton, Ohio.

To the Editor: The present unprecedented world-wide unrest includes our profession. We are threatened with medical fads and fancies as never before. Few doctors give intelligent attention even to the present medic-economic and medico-political situation. We need all the help we can get in the campaign of education of the medical profession as to what is going on in medical affairs. You remember the fate of the fat cattle when dissensions arose among them. *We must have harmony, if we have to fight for it.* As a profession, we have never gotten together so as to protect our own selfish interests as we should. Dr. Geo. L. Servoss told us nothing but the truth in the March 26 issue of the *Medical Record*:

"Medicine is becoming more and more of a machine, a machine under the manipulation of a favored few who happen to be in power. This machine is, without a doubt, to blame for the suggested 'state medicine,' or 'social medicine,' for such a thing will add just one more cog to that machine and make those handling it still more powerful. Even today there is but little of democracy or true Americanism in the medicine of this country. The profession, as a whole, has but little to say of its condition, and if 'state medicine' comes in vogue and the people become pauperized thereby, we may expect to be further

hidden under the bushel, as a whole, with but a favored few in the limelight. We will be but hidden parts of a gigantic machine and with no incentive or opportunity to allow the shining of any individual light. We may even become known by number and have to punch the time clock. For it will be of interest to the favored few, who would tell us what to do, that our identity, as individuals, be lost."

Sincerely yours,

GAINOR JENNINGS, M. D.

WARREN COUNTY, ILLINOIS, SETS
EXAMPLE FOR OTHERS TO IMITATE
HOW THIS COUNTY DELIVERED ON THE MATERNITY BILL

To the Editor: Received your letter today relative to the Maternity Bill. I want to state that yesterday I talked to the Monmouth Women's Club against the bill, and other members of our society have talked to other clubs and we have been sending our congressman, Wm. J. Graham, a fine bunch of telegrams. The Warren County Medical Society and the Monmouth Medical Club have both written and telegraphed to him. Senator Buck of this city, a very close friend of Graham's, has also, at the request of the writer, taken up the matter with Graham, and I believe Buck can do more with him than anyone in the district. We have brought to light some very interesting things. Last December or early in January the Women's Clubs received information regarding the proposed bill—and requesting their endorsement. In addition to this, they asked the club to send a copy of their endorsement to several other clubs.

In one instance (one of the best known women's organizations in the whole country) a chain letter was received along this line, and the local club, after endorsing it, sent the same letter to several other clubs. Yesterday they sent a letter to each of the clubs to which they sent the chain letter of endorsement, and told them they were opposed to the measure and had they understood it definitely previously they would never have given their endorsement in the first place. This evidently is the way the so-called ten million club women in the country endorsed the measure.

We would appreciate a word from you as to what we can do in addition to the actions we have taken. If the bill is amended I would

appreciate definite information on the changes as soon as possible.

Assuring you that this county is always ready through our society to co-operate in every way possible, I beg to remain,

Very truly yours,

H. M. CAMP,

Sec. Warren Co. Med. Soc.

PRACTICING MEDICINE IN ILLINOIS
WITHOUT A STATE LICENSE

Galena, Ill., Jan. 30, 1922.

To the Editor: It seems that this part of our state is becoming infested with the product of the Palmer institution at Davenport, Iowa. At present there are four of them plying their trade in our county. No one of these is registered by our Department of Education and Registration.

Further it seems that the Department of Education and Registration, under the present director, is loath to do anything to compel these people to comply with the laws governing such practitioners as the enclosed correspondence will show. I am therefore sending you this open letter to the Director of the Department of Education and Registration, Mr. W. H. H. Miller, original of which has gone forward to him today.

I am, yours very truly,

G. W. RICE, M. D.

Galena, Ill., Jan. 27, 1922.

Mr. W. H. H. Miller,
Director Education and Registration,
Springfield, Ill.

Dear Sir: Your letter of yesterday received in which you state that your department will investigate the unregistered parties plying their trade in this county.

May I state that your attention has been called to these parties no less than five times during the past four or five months. I have notified you on three occasions and the president of our County Medical Society has notified you once at least, and to date nothing has been done by your department.

As I informed you in my former letters the medical profession in this vicinity can offer no objections to these people if they comply with the laws. The physician and surgeon, who has spent at least five times as long in getting his preparation as do some of the products of the institution from which these parties come, is re-

quired to comply with the laws governing the practice of medicine.

In an address before the Champaign County Medical Society May 12, 1921, published in the September issue of the *ILLINOIS MEDICAL JOURNAL*, page 195, you refer to the "Administrative Code as contained in Sections 58 to 65 inclusive," following with this statement: "It is the Governor's policy and likewise mine to co-operate with the various professional committees in enforcing the laws pertaining to the several professions strictly, honestly and intelligently." Also you state: "It is my sworn duty and my pleasure to maintain these standards as outlined in the medical practice acts and the administrative code." Farther on in your address you make the following statement: "A licentiate and all others who advertise to cure incurable diseases and rob the people of our state will be summarily dealt with."

The arrogant claims put forth in the advertisements of some chiropractors, I dare say, would cause the blush of shame to mantle the cheek of the most unscrupulous advertising quack that ever used the daily press to sell his wares.

Dr. George Dock states: "It is true, in a sense, that the method of study followed and the methods of practice inculcated are not worth the consideration of intelligent people; yet the fact that more than three thousand potential voters spend a number of months and several hundred dollars apiece in getting the so-called training in a single school is a matter worth the consideration not only of physicians, but also of hygienists, economists, psychologists and jurists." (*A Visit to a Chiropractic School*. George Dock, M. D., *Journal A. M. A.*, Jan. 7, 1922, page 60.)

In a conversation with a product of this institution I asked him the following questions: Did you do any dissecting? Ans.: No. Did you study pathology? Ans.: No. Did you study bacteriology? Ans.: No. Did you study physiology? Ans.: A little. Would you treat a case of infectious disease? Ans.: Yes. Would you treat a case of diphtheria? Ans.: Yes. How? Ans.: By adjustment. But if it did not get better after three days I would turn it over to someone else. That would be the undertaker, would it not? Ans.: I don't know.

Mr. Miller, your attention has been called, no less than four times during the past four months to the fact that Tilson and Tilson have been

practicing their cult in this vicinity, and to date your department has done nothing, as far as I am able to learn, to compel them to comply with the laws. In answer to each of the letters sent you, you have replied substantially as follows:

Dr. G. W. Rice,
Galena, Ill.

Dear Doctor: I have your letter of January 22, 1922, and in reply write to say our records do not show the registration of Tilson and Tilson or Duensing and Duensing as chiropractors. We are today requesting our complaints division to make an investigation and take such action as may be deemed necessary.

Thanking you for your letter, I am,

Yours very truly,

W. H. H. MILLER,
Director.

Still, they and others of their kind continue to infest this county in defiance of the medical practice acts under which your department is now operating.

In view of this fact I feel it my duty, as a member of the committee on fakes and fakers of the Jo Daviess County Medical Society, to send this correspondence to the *ILLINOIS MEDICAL JOURNAL* for publication in order that the medical profession of our state may know the dilatory method your department has pursued in this matter.

Can it be that under your administration of the Department of Education and Registration, Illinois will become the dumping ground for the products of an institution that requires rather a limited preparation for graduation, and that such graduates be permitted to practice their cult in defiance of our laws?

I am informed by our Attorney General that the Medical Practice Act of 1899, as subsequently amended, is now in force, and that under said Act chiropractors are required to take an examination and have a certificate or license authorizing them to practice.

As above stated all that the physicians of this community and the state can ask is that these people be required to comply with the laws the same as educated physicians must do before practicing, and the medical profession of this state must look to you to enforce the Medical Practice Act.

Yours truly,

G. W. RICE, M. D.

WAS IT A GREAT DAY FOR MICHIGAN DOCTORS?

January 20, 1922.

To the Editor: We certainly had some meeting at Detroit. On Tuesday evening from six to one o'clock a. m. we mauled things over at the Detroit Athletic Club, and it was some hot session. We telephoned that President Burton of the University, Hugh Cabot and others could be present at the Councilors meeting the next day. They were obliged to get up long before daylight and drive sixty miles in order to be present at our meeting at 8:30 in the morning. It was a case of Mohammed coming to the mountain instead of the mountain going to Mohammed. They brought the peace dove with them.

President Burton and Dr. Cabot said that they wanted to be with us, that they are against State Medicine, Compulsory Health Insurance, Community Hospitals, etc.

They said further that through the extension service of the University they will deliver lectures all over the state of Michigan on what general medicine has done in the past, what it is doing at present and what it will do in the future; that they will not say a word against any cult or sect which I think is very wise.

It is my belief that January 11 was one of the greatest days for medicine in the state of Michigan for many years.

I am thoroughly convinced that the victory that the State Medical Society obtained over the University the other day at Detroit is largely due to the work of yourself and Dr. Bulson of Indiana. I wish that you would congratulate Dr. Bulson for me.

H. W. A.

Note and Comment:—Evidently some of the Michigan doctors feel that Burton and Cabot, et al., have abandoned their former socialistic plans. Like the Scotchman "I hae me doots" the leopard cannot change his spots; we are from Missouri and in this case have to be shown. All our life we have been watching the performance of medico-politico acrobats, jugglers, trained seals and tight rope walkers and we feel that we are perfectly competent to recognize such performers when we see them.

Burton and Cabot have not reformed. At the meeting referred to above they camouflaged and sidestepped completely the fact that in the past

they have been advocating socialized medical schemes such as the community clinics which they proposed would be a direct step toward placing the practice of medicine in Michigan under state control.

We believe with Dr. Albert E. Bulson, Jr., editor of the *Indiana State Medical Journal*, in his analysis of the Michigan proposition, when he says "that the community clinic which they proposed would be a direct step to place the practice of medicine in Michigan under state control. In fact, they boldly stated that these clinics in various sections of Michigan were to be conducted and controlled by the University authorities, the latter of course being under state control. Just what the medical men of Michigan are thinking of to let the University of Michigan pull off a stunt of that kind is more than I can understand. Furthermore, if the University of Michigan, as avowed in their statement just published, is to confine itself to teaching, why in the name of heaven have they arranged for enormous hospital facilities far beyond the needs of teaching purposes? There is a joker in the whole program and the medical profession of Michigan will wake up when it is too late."

Society Proceedings

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular Meeting, February 1, 1922

1. Anaesthesia in Children; Safest Methods and Agents, Frances E. Haines.

Discussion: Kellogg Speed, Isabella C. Herb, J. E. H. Atkeisson.

2. Moonshine Psychosis, B. Lemchen.

Discussion: Bayard Holmes, Sidney Kuh.

3. The Treatment of Malignant Tumors of the Pharynx and Larynx by Diathermy, Frank J. Novak, Jr.

Discussion: Charles M. Robertson.

Regular Meeting, February 8, 1922

1. The Treatment of Malignant Tumors of the Pharynx and Larynx by Diathermy, Frank J. Novak, Jr.

Discussion: Charles M. Robertson.

2. The Symptomatology of Chronic Fatigue Intoxication, Edward H. Ochsner.

General discussion.

3. The Avoidance of Fasting in Diabetes, R. T. Woodyatt.

General discussion.

Regular Meeting, February 15, 1922

Some Newer Phases of Vitamin Studies, A. D. Em-

mett, Chairman Nutritional Committee, American Chemical Society, Detroit, Mich.

Discussion: W. H. Welker, Professor of Physiological Chemistry, University of Illinois; A. J. Carlson, Professor of Physiology, University of Chicago; C. J. Farmer, Professor of Chemistry, Northwestern University.

Regular Meeting, February 22, 1922

Joint Meeting Chicago Medical Society and The Robert Koch Society.

"Relation of Heredity to Tuberculosis," Paul A. Lewis, Director, Henry Phipps Institute.

Discussion: Prof. H. H. Newman, Robert Babcock, Isaac A. Abt.

Regular Meeting, March 1, 1922

1. Clinical Diagnosis and Treatment of Obtruator Hernia, illustrated by lantern slides, Leigh F. Watson. General discussion.

2. The Management of the Occiput Posterior Positions, Edward Lyman Cornell.

Discussion: Joseph B. DeLee.

3. Relation of Urology, and Especially Pyelography, to General Diagnosis. Vincent J. O'Connor.

JO DAVIESS COUNTY

The Jo Daviess County Medical Society met at Warren, January 26, 1922, with Dr. C. A. Brink, president, in the chair. This being the date of the annual election the following officers were appointed for 1922:

Dr. F. J. Shook, Warren, president; Dr. Reiger, vice-president; Dr. R. E. Logan, Galena, secretary-treasurer; Dr. A. T. Nadig, Elizabeth, censor; Dr. Logan, delegate to State Convention; Dr. Reinwick, alternate delegate.

After the election papers were read by Dr. A. T. Nadig of Elizabeth upon "Acute Tonsillitis," and Dr. Karcher gave a paper upon "Open Treatment of Fractures." These papers were both ably given and proved of benefit to the Society.

A committee was appointed by the chair to revise the fee bill of the county.

Following these proceedings a banquet was served at the Hotel Warren.

The next meeting will be held in April at Elizabeth.

R. E. LOGAN,
Secretary-Treasurer.

MADISON COUNTY

Our February Meeting

The Madison County Medical Society met in Granite City on February 3, 1922. President A. F. Kaeser, in the chair.

Twenty-six members and three visitors were present.

Dr. L. St. A. Whitley, of Godfrey, was elected to membership. By vote Dr. J. R. Lionberger, of St. Louis, was invited to give his illustrated lecture on "Vitamines."

The community nurse read her monthly report which was received and placed on file.

Dr. John L. Tierney, of St. Louis, then gave a most

excellent address on "Cardio-Renal Diseases," which caused an animated discussion. He was given a hearty vote of thanks. Adjourned to meet in Collinsville on the first Friday in March.

ROCK ISLAND COUNTY

The following resolution was adopted by the Rock Island County Medical Society at the meeting February 14, 1922:

WHEREAS, the public and profession are being sold out to 1. foundation control of full time medical education, 2 lay board domination and the "closed shop" hospital, socialized state medicine, subsidized community health and hospitals under political or university control, legislative dictation of therapy and fees, exploitation of the specialties by lay technicians, therefore be it

Resolved, That all delegates of the Illinois State Medical Society to the A. M. A. meeting in St. Louis, Mo., May 22-26, 1922, are instructed to vote for (a) a change of policy and leadership in the A. M. A. pledged to the immediate abolition of the evils mentioned, and constructive protection of medical interests; (b) the repeal of multiple representation and plural voting privilege by section delegates; (c) the election of trustees for a period of two years, five trustees to be elected one year, and four the next, to prevent the trustees from perpetuating oligarchical rule; be it further

Resolved, That copies of these resolutions be sent at once to the official organ of the Illinois State Medical Society, The Journal of the A. M. A. and the Medical Advisory Committee.

(Signed)

G. D. HAUBERG,
Secretary R. I. Co. Med. Soc.

SCHUYLER COUNTY

The first monthly meeting of the Schuyler County Medical Society was held at the home of Dr. and Mrs. Fleming on the evening of January 3, 1922. After enjoying an oyster supper served by Mrs. Fleming the society went into executive session, electing Dr. A. W. Ball, president; Dr. C. M. Fleming, secretary; Dr. H. O. Munson was elected delegate for two years; Dr. W. F. Justice, alternate.

February Meeting

Dr. and Mrs. Harvey entertained the Schuyler County Medical Society at their home, February 8, 1922. Mrs. Harvey served an excellent 6 o'clock dinner. The meeting was called to order by President Ball. A motion by Dr. Harvey that this society go on record as being against State Medicine carried. Motion by Dr. Munson that chair appoint a committee to confer with the county societies in the Thirtieth Senatorial District in regard to the support of candidates that are against State Medicine for the state of Illinois.

C. M. FLEMING.

STEPHENSON COUNTY

The Annual Meeting of the Stephenson County Medical Society was held January 12, 1922, at the

Senate Hotel, Freeport. After luncheon the following officers were elected for the ensuing year: Dr. Benjamin A. Arnold, president; Dr. John J. Grant, vice-president; Dr. John A. Ascher, secretary.

Installation will take place at the next regular meeting of the society.

The city physicians by previous arrangements will continue to take care of delinquents reported by the supervisor and Civic Center, the compensation for this work going to the treasury of the society, to provide better equipments.

Among the many guests present were two well-known specialists from Chicago—Dr. Frank Allport, an oculist and aurist, who has held chairs in Ophthalmology in the University of Minnesota and the Northwestern University Medical School, and now in active practice in Chicago, gave a very interesting talk on "Penetrating Injuries of the Eye by Steel Particles."

Dr. Ernest E. Irons, Assistant Professor of Medicine in Rush Medical College and an attending physician in hospitals of Chicago, gave a diagram lecture on "Chronic Infections and Their Portals of Entry."

B. A. ARNOLD, M. D.,
President.

Marriages

SAMUEL AGEE FUQUA, Lieut., M. C. U. S. Naval Reserve Force, Chicago, to Miss Geraldine McElroy of Rensselaer, Mo., January 21.

HARLAN HUBEL, Laura, Ill., to Mrs. Mabel Wells of Peoria, Ill., January 21.

Personals

Dr. Isaac Abrahams is in a serious condition in a local hospital as a result of being shot, he reports, by his colored office girl.

Dr. Peter S. Winner, Elgin State Hospital, has been appointed assistant superintendent of the Peoria State Hospital, effective February 1. Dr. Anthony G. Wittman, Anna State Hospital, will succeed Dr. Winner.

Dr. Clarence A. Earle, Des Plaines, recently resigned from the position of district health superintendent of the state department of public health and has been succeeded in that capacity by Dr. George A. Klein, Chicago.

Dr. John Dill Robertson, former city health commissioner, has been elected president and director in charge of the Chicago pageant of

progress to be held July 29 to August 14, at the Municipal Pier, Chicago, to succeed Mayor Thompson, who resigned.

Dr. William D. Napheys, formerly of Chicago, has removed to Los Angeles and is practicing at 6779 Hollywood Avenue.

Dr. A. J. Roberts was recently elected president of the La Salle County Tuberculosis Association, in succession to Dr. Maciejewski.

Dr. Fred Green, secretary of the Committee on Health and Public Instruction of the American Medical Association, has resigned from this position where he has been active for fifteen years. His resignation to take effect March 31, 1922.

News Notes

—The following have been elected to serve as officers of the Jefferson County Medical Society for the present year: Dr. O. A. Suttle, president; Dr. G. O. Culli, vice-president; Dr. William G. Parker, secretary-treasurer, and Dr. Todd P. Ward, member of the Board of Censors, all of Mt. Vernon, Illinois.

—At the joint meeting of the Robert Koch Society for the Study of Tuberculosis and the Chicago Medical Society, held February 22, in Chicago, Dr. Paul A. Lewis delivered an address on "Relation of Heredity to Tuberculosis."

—Dr. Hugh E. Bowerman, Leaf River, was recently fined \$5 and costs for failing to report births that occurred in his practice. The complaint against Dr. Bowerman was brought by the local State's Attorney at the request of a field agent of the state department of public health.

—It was ruled by Judge FitzHenry, Bloomington, that Dr. Joseph E. Wharton, Jacksonville, who was charged with violation of the Harrison narcotic law, shall serve a sentence in the penitentiary or enter an institution and of his own volition take the drug cure. Sentence was suspended until Dr. Wharton takes the cure, or on his refusal he will be sentenced to the penitentiary.

—The state department of public health, in co-operation with the U. S. Public Health Service, the International Health Board and a number of local agencies, has launched an antimosquito campaign in Carbondale. According to the plans the campaign, which is already under way, will constitute the most exhaustive project of the

kind ever undertaken in the state. The Lions' Club has guaranteed \$2,000 toward defraying local expenses, while the medical profession is actively supporting the proposition.

—It was announced, February 11, by Dr. Herman N. Bundesen, city health commissioner, that notices have been received from Dr. I. D. Rawlins, state director of health, that Chicago's leper colony at the Cook County Hospital is to be consolidated with the government leprosarium at Carlville, La., owing to the lack of freedom necessitated by their living in one room at the Cook County Hospital.

—At the request of local organizations a new clinic for crippled children has been established by the state department of public health at Kewanee. The clinic is conducted under the supervision of Dr. Clarence W. East and is supported through the co-operation of a committee of local physicians, the Rotary Club, the Red Cross and local health departments. This brings the total number of such clinics that are now in operation throughout the state up to twenty-five.

—New York City, with a death rate of 11.2, still retains its lead over the remainder of the state, for which the 1921 rate was 13.5 per 1,000 population. (The up-state death rate, unlike that of New York City, can be calculated and announced each year only after the returns are all in from the 1,492 local registrars who report to the state health department the births, marriages and deaths of the cities, towns and villages outside Greater New York). In the upstate area it is also of interest to note that the 1921 rate in cities was 12.6 as against 13.5 for the rural area.

—Money has been raised from private sources to purchase equipment and employ the necessary personnel for opening the Morgan County Tuberculosis Sanatorium, which has stood idle since its purchase because of lack of public funds for operation. It is reported that a physician has already been appointed to direct the institution, and that arrangements have been made to accept patients from other counties at a stated rate per week. Tuberculosis patients from Morgan county will receive free treatment.

—Dr. Ranson Logan Estes, whose career at Mattoon, Neoga and Sullivan and at points in Shelby county has attracted attention for several years, was recently sentenced to serve from

one to ten years in the Southern Illinois Penitentiary. Reports at various times have connected Dr. Estes with defrauding an express company, robbing a bank, and trafficking in stolen automobiles. The charge on which he was finally convicted and sentenced to prison was that of assault with intent to kill.

Deaths

ERNEST A. ALGOTH, Chicago; Jenner Medical College, Chicago, 1916; member of the Illinois State Medical Society; was found dead in his office, January 23, aged 47.

GEORGE W. BLEY, Beardstown, Ill.; Jefferson Medical College, Philadelphia, 1881; a Fellow A. M. A.; died suddenly, January 20, from angina pectoris, aged 70.

MILTON B. BLOUKE, Chicago; Chicago Homeopathic Medical College, 1885; at one time professor of gynecology, Hahnemann Medical College and Hospital of Chicago; died February 13, at St. Petersburg, Fla., aged 59.

FELIX M. BORUCKI, Chicago; University of Kharkov, Russia, 1874; a Fellow A. M. A.; died February 13, aged 73.

HIRAM HOWARD BURRIS, Dongola, Ill.; Chicago Physio-Medical Institute, Chicago, 1889; died January 19, from carcinoma of the bladder, aged 55.

ROBERT FOSTER DAYES, Freeport, Ill., University of Pennsylvania, Philadelphia, 1858; died November 6, aged 85.

ALLEN B. GUNN, Belleville, Ill.; Missouri Medical College, St. Louis, 1875; died January 22, from pneumonia, aged 74.

ORA DEWITT HOLLAND, Streator, Ill.; Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, Ky., 1879; Bellevue Hospital Medical College, New York City, 1880; died December 15, at Long Beach, Calif., from heart disease, aged 68.

CHARLES ALBERT JOHNSON, Barry Ill.; Keokuk Medical College, College of Physicians and Surgeons, Keokuk, Iowa, 1903; was shot and killed by an insane man, February 7, aged 41.

BURNEY J. KENDALL, Geneva, Ill.; University of Vermont College of Medicine, Burlington, 1868; died January 11, from angina pectoris, aged 76.

WILLIAM C. SIBLEY, Fairfield, Ill.; St. Louis College of Physicians and Surgeons, St. Louis, 1891; died January 10, aged 64.

WADE D. STEVENS, Pawpaw, Ill.; College of Physicians and Surgeons, Chicago, 1894; died, recently, as the result of an overdose of a narcotic, apparently self-administered, aged 54.

WELLINGTON T. STEWART, Chicago; College of Physicians and Surgeons (University of Illinois), Chicago, 1893; a Fellow A. M. A.; died February 11, at Battle Creek, Mich., from heart disease, aged 57.

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No. 4

Original Articles

AGITATION FOR FREE CHOICE OF PHYSICIAN IN NEW YORK AND WHAT IT LEADS TO.

EDEN V. DELPHEY, M. D.
NEW YORK CITY

An article under the above caption was published in *The Monitor*, official publication of Associated Industries of New York State, Inc., at Buffalo, N. Y., in December, 1921, and circulated as a reprint by the author, Mr. Oliver G. Browne, secretary of the Self-Insurers Association, even while a committee of which he was and is a member and appointed by the industrial commissioner, was engaged in making a survey and considering the same and numerous associated questions regarding medical work, etc., under the Workmen's Compensation Law. In commenting on this article, the writer wishes it to be distinctly understood that he has no personal or other animus in the matter; that the author may be "as good a neighbor, as kind a father, and as loving a husband as ever cut a throat or scuttled a ship." The writer opposes him because his written words are inimical to the best interests of the workman as well as to those of the medical profession.

The writer quite agrees with the author of the article that medical service under the compensation law is the obligation of the employer and the right of the employee, but as the law is usually interpreted and administered the choice of the physician is made by the insurance carrier, although "The insurance carrier has no voice in the choice of the physician" as decided in the

Note: On account of the pernicious activities of some mercenary and unscrupulous employers and insurance carriers who are satisfied to fulfill merely the letter and not the spirit of the compensation laws—which have been enacted in many and which are in process of amendment in a few States—in providing medical care and treatment to injured employees, and of the ill-informed and ill-advised uplifters who are trying to force medical socialism upon the people of this country thereby destroying individuality and debasing the physician below the level of the union bricklayer and plumber, the writer of this article believes the subject to be of such importance that he is sending the article to a number of medical journals.

case of *Mezeritsky vs. Mezeritsky & Miller*, 15 S. D. R. 613, 3 Bul. 145; App. Div. 919. The most common causes of complaint of physicians attending compensation cases are the "lifting" of cases and the refusal to pay or the arbitrary cutting of the bills of the physicians for services rendered, even sometimes when the physician has been properly authorized by the employer to attend and treat the injured workman. The writer has had a number of such cases brought to his attention since he began serving on the above mentioned committee. Of course, strictly speaking, the employer has the right under the law to decide who is to attend and treat the injured workman, but has the workman no constitutional rights in the matter? The employer simply risks a few dollars, more or less, and adding it to the overhead charges of doing business, passes it along to the ultimate consumer, but the workman has his life, health, and future usefulness at stake. The New York State Federation of Labor, composed of 850,000 members, of whom 750,000 are voters, recognized this fact and the "locals" voted to instruct their delegates to the State Federation, and the latter went on record in favor of "free choice" in these cases.

The author says:

How does the doctor figure in this problem? . . . He is not a party to it any more than is . . . or any other class of people who might be mentioned.

This is the *ipse dixit* of a man who is by profession a lawyer and by practice both a lawyer and an insurance official—secretary, Self-Insurers Association—and who under the decision of the court, quoted above, "has no voice in the selection of the physician," but he knows that it is the habit of some members of his profession to endeavor to win cases by obscuring the issue, giving half-truths, issuing innuendo, etc., when either or both the law and the facts are against them. The physician figures in this problem just as much as does the insurance carriers for whose benefit the law was not enacted, but the stock of one carrier, doing compensation work and which

has two employees on the committee of the Industrial Commission, sells in the open market for 640.

The Legislature did have in mind, according to judicial interpretation of the Compensation Law, the economic relief of certain classes of injured employees and their dependents who were becoming burdens on the community, due to the increasing number of cases in which there was no remedy at law to afford them maintenance.

According to the writer's best recollection, not only was such the case, but also because it was difficult for a poor injured workman to successfully fight a rich corporation and get justice; that he was very frequently induced to settle the case for much less than he was entitled to; and to the fact that the employers desired to avoid the annoyance of being compelled to defend legal actions brought by "ambulance chasing lawyers."

The enactment of the medical section did give the doctor a privilege which they had not previously enjoyed, in that it assured them their pay when *properly employed*. (Italics ours.)

The enactment of the Compensation Law not only did not give the physicians a privilege which they did not have before, but as the law is interpreted it deprives them of a certain amount of professional practice which they previously had by the *special choice of the patient*. It is true that the law changed the paymaster, but did that improve matters? Do not the physicians have more trouble in collecting their bills under the Compensation Law than formerly? According to the present practice "being properly employed" means either having a personal contract with the insurance carrier or being a "sweat-shop surgeon" for someone else who has such a contract. One such contractor has 72 dressing stations in New York City and it was testified pays his employee-physicians 50 per cent. of the income which they receive from the work sent by him at \$1.50 per dressing, the employee-physician paying all the overhead costs.

Now let it be understood clearly that the law at the present time provides and has at all times provided for absolute free choice of physician so far as the injured man is concerned. Furthermore to get the *business* (italics in the original) there is the fullest and freest competition permitted by the law . . . But this competition is based on ability and merit and not on intrigue.

If the author would reverse the positions of "intrigue" and "ability and merit," the statement would be more nearly true, but the above state-

ment evidences a desire on the part of the author to induce physicians to engage in the undignified and unprofessional scramble for business, something the profession is very loth to do.

There is a natural tendency to develop a specialized surgery in congested centres that is especially valuable to the two parties vitally interested in the compensation law. . . . The law which we know as the "survival of the fittest" operates to gravitate this business to such men because it is to the employer's interest to select such men.

If it is to the employer's interest to select such men as they have selected in the past—and some employers have selected such men as the 72 sweat-shop dressing stations furnish, and such an one who, doing the work of 65 insurance companies in his town, appeared before the committee at one of its up-state hearings, and with whom even some of the members of the committee employed by the insurance carriers, were not at all favorably impressed—does the author think they have selected the best men? Moreover, how can there be a survival of the fittest when all the fit do not have a chance to compete? Every surgeon knows that there are no special methods of technique which are only, or even especially, applicable to so-called industrial surgery; that when a man has a broken bone there is no difference in the technique of the treatment whether it is a compensation case or not; that when he receives an accidental wound the technique is the same whether his employer is or is not in the hazardous class and, therefore, is insured under the compensation law.

Anything that is short of the choice of the physician by the employer as at present, will have very dangerous results. (Italics in the original.)

And yet in the committee of the Industrial Commission, the hue and cry by the employees of the insurance carriers has been: "We can't get the best surgeons to do the work." Of course they can't, because the best surgeons don't want the annoyance of having cases "lifted" on them, and having their bills arbitrarily cut down by the carriers.

The injured man would get no benefit from the change because (a) No argument that improved treatment would result can be advanced in favor of it.

If by "free choice" the best surgeons can be induced to engage in the care and treatment of compensation cases, will not "improved treatment" result?

(b) It would not improve the standard of the medical profession.

The writer does not think the author need worry about the standard of the medical profession, as at present it is higher than the one to which he belongs and that it requires at least one year more of collegiate instruction, besides the time spent as an interne before engaging in private practice than does his profession.

On the contrary, it would arrest the development of the specialized service now so splendidly functioning.

And yet we have the 72 sweat-shop dressing stations! And at one of the up-state hearings it was testified that an ex-butcher boy was doing the first-aid treatment by the permission and approval of the so-called industrial surgeon, the employer, and the insurance carrier.

(c) It would not lessen, but would foster quackery and the injured man would become the subject of all sorts of absurd treatments at the expense of the employer.

(d) It would offer him as the subject for uncontrollable exploitation by unscrupulous practitioners, for there would be no incentive to prompt restoration to usefulness and health.

Does the author not know that the medical profession is the most altruistic one on the face of the earth; that the good of the patient is always the first interest of the physician; and that he is continually giving his best efforts without hope or expectation of compensation in poor and needy cases? Does the author think that under "free choice" the injured workman could be any worse off than he is now when under the present system of sweat-shop dressing stations and contract surgeons the tendency is to return the man to work sooner than is advisable? We admit that any exploitation is an evil, but which is the worse, to exploit the employer's pocket-book—if such really is the case—or to exploit the poor workman's life, health and future usefulness?

Then other medical groups or "services" would be built up depending not on getting business from an employer or a labor union, but upon intrigue or sociability, or politics, as the opportunity might offer. The so-called lodge doctor or contract physician would be in evidence—securing to the workmen and their families *cheap* medical service, but depending largely on securing injury *business* thereby, and recouping from the employers. Imagine the position of the honest employer or worthy employee whose interest is committed to such men.

Is not the contract physician in evidence now? And is the author fearful that someone will com-

pete with the men already in the business, one of whom is advertised in the mid-January number of an insurance journal with not only two and one-half (2½) pages of text, but also with a portrait of the "contractor" and nine and one-half pages of half-tones of views of his place?

Here and there in the medical profession is to be found a doctor displeased with present conditions. . . . Unfortunately the medical societies, because of dissatisfaction of a few, are with the labor unions in seeking a change.

Not only here and there, but everywhere, the "doctors" are dissatisfied with the Workmen's Compensation Law, as it has been interpreted and administered in the past. The medical societies are rightly and justly seeking a chance of conditions, not only for themselves, but more especially for the injured workmen. The "doctors" and the labor unions see and know the evil effects of the defects of the law and very properly seek to change it so that it will more nearly accomplish what the legislature intended it to do.

Numerous medical societies have carefully considered and thoroughly discussed the subject of free choice of physician under the Workmen's Compensation Law in all its phases, but more especially from the point of view of the best interests of the men who have the most at stake, the workmen; and they heartily approve of some such amendment to Section 13 as that introduced by the writer. He desires to call attention to the fact that this amendment does not give absolute free choice of physician, as there is nothing absolutely free in this or in any other country. We have no absolutely free speech, free press, or free anything else; everything is regulated according to the best interests of society. The writer distinctly specified in the suggested amendment: "under the supervision of the Commission," and he suggested to the Commission and to the committee the employment of a small number of consultants who should visit cases suspected of not receiving the best treatment, observe the method employed, and act as a consultant when desired. Mr. Miles Dawson, attorney and actuary, was the legal adviser of the governor in the matter when the Workmen's Compensation Law was under preparation for enactment. He took a large part in the drafting of the law; and he was the attorney for the Hon. Jeremiah O'Connor who, under the Act of the Legislature in 1919, made a very thorough investigation of the administration and

working of the law and submitted twenty-six recommendations for its improvement. Mr. Dawson is strongly in favor of free choice of physician and so stated before the Knight Re-codifying Committee of the Legislature this year and before the Workmen's Compensation Commission, declaring that this method of procedure with the consultants would more than pay for itself in reduced costs for medical service.

SUGGESTED AMENDMENT TO THE WORKMEN'S
COMPENSATION LAW

Section 13, Treatment and care of injured employees:

The employer shall promptly provide for an injured employee such medical, surgical or other attendance and treatment, nurse and hospital service, medicines, crutches and apparatus as the nature of the injury may require during sixty days after the injury; but the commission may where the nature of the injury or the process of recovery require a longer period of treatment, require the same of the employer. [If the employer fails to provide the same, after request by the injured employee, such injured employee may do so at the expense of the employer. The employee shall not be entitled to recover any amount expended by him for such treatment or service unless he shall have requested the employer to furnish the same and the employer shall have refused or neglected to do so, or unless the nature of the injury required such treatment and services and the employer, or his superintendent or foreman having knowledge of such injury shall have neglected to provide the same.] *An injured employee shall have the right to choose any physician duly licensed to practice medicine in this state to attend and treat him for the injury as hereinbefore provided, subject to the supervision of the Commission.* All fees and other charges for such treatment [and] services, medicines, crutches and apparatus shall be subject to regulation by the commission as provided in section twenty-four of this chapter, and shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living.

The writer believes that when a sovereign state certifies in due and proper form that a person is

properly qualified to practice medicine and surgery, no act of the legislature should deprive him of the right to so practise in any and all cases when and where the sick or injured man chooses him so to do.

134 West 71st Street.

THE TREATMENT OF MALIGNANT
TUMORS OF THE PHARYNX AND
LARYNX BY DIATHERMY.*

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CHICAGO

Diathermy has been an accepted therapeutic measure for about fifteen years. It has been extensively used, but its special application to the treatment of cancer of the larynx is recent, and the technique of the treatment is nowhere described in the literature, with any degree of thoroughness. The subject matter which we wish to present to you is the result of an effort to work out a suitable technique for the application of surgical diathermy to neoplasms of the mouth, pharynx and larynx.

In 1907 Nagelschmidt of Berlin established the fact that the high frequency current is capable of raising the temperature of living tissue. Raising the temperature of living tissue within physiologic limits is called medical diathermy. Raising the temperature of tissue beyond physiological limits to actual coagulation is called surgical diathermy. The great problem of diathermy has been the perfection of a high frequency apparatus capable of producing a current of low voltage, of high amperage, and of extremely high frequency. The new Victor apparatus employed in our work produces a deep penetration of tissue, without carbonization, because it eliminates the undesirable spark of the older machine and, moreover, produces no muscular contractions.

The heat produced is the result of the resistance of the tissues to the high frequency of the D'Arsonval current.

The basis upon which the whole theory and practice of diathermy rests lies in the following facts: The local application of sufficient heat to a neoplasm destroys the tumor mass. The application of lower degrees of heat to the periphery

Matter in brackets to be omitted.

Matter in italics is new matter.

*Read before Chicago Medical Society, February 8, 1922.

of the tumor mass and beyond its limits results in the inhibition of the growth of the migrating neoplastic cells. The dissemination of these cells throughout the organism is further prevented by the occlusion of the lymph spaces and channels, and further by the formation of scar tissue which forms a most desirable barrier against the new growth.

A generalized carcinomatosis is utterly hopeless from the standpoint of diathermy or any other known measure. We shall consider, of course, only the case in which the tumor is limited in that it involves only the adjacent lymphatics and glands. Given a carcinoma of the larynx in its early stages before a generalized dissemination of metastases has occurred, and it is our belief that diathermy offers advantages over all other known measures. What are these advantages? We must consider the problem of recurrence at the site of invasion, and secondly, the problem of metastasis. In surgical removal by excision of the tumor mass there is no distinct line of demarcation between grossly normal and grossly pathological tissue.

Incomplete removal of the tumor is, therefore, a strong possibility. Stimulation of growth of any remaining focus by the surgical manipulation itself is also a strong possibility. By diathermy, on the other hand, not only is the mass of the tumor destroyed, but the deep penetration of high degrees of heat destroys or at least inhibits instead of stimulating the neoplastic cells in the zone just beyond the periphery of the gross tumor mass.

In regard to metastases. Surgical implantation of neoplastic cells into healthy tissue is the unavoidable result of excision. Dissemination of metastases by the opening of lymphatics and blood-vessels is also unavoidable. By electro-coagulation the lymphatics and blood-vessels are closed. Metastases are not disseminated. There is no possibility of implantation of neoplastic cells into adjacent normal tissue.

It is the consensus of opinion of those who have written upon electro-coagulation that electro-coagulation supplemented by radiation possesses advantages not enjoyed by either coagulation of radiation alone. It is impossible here to elaborate upon the relative advantages of radiation and coagulation respectively.

If heat is the agent upon which we rely to destroy carcinoma by diathermy, the question may

be asked why the actual thermo-cautery has failed in the treatment of carcinoma. The penetration of heat from the thermo-cautery is practically a negligible quantity, and since we must depend upon deep penetration of heat it is readily understood why the thermo-cautery possesses none of the advantages of diathermy. This has been conclusively proven by Doyen and others in a comprehensive series of animal experiments.

The choice of anesthetic in the treatment of cancer of the mouth or larynx is a matter of the greatest importance. Local anesthesia, or block anesthesia, cannot be recommended. The danger of ignition from an accidental spark makes ether

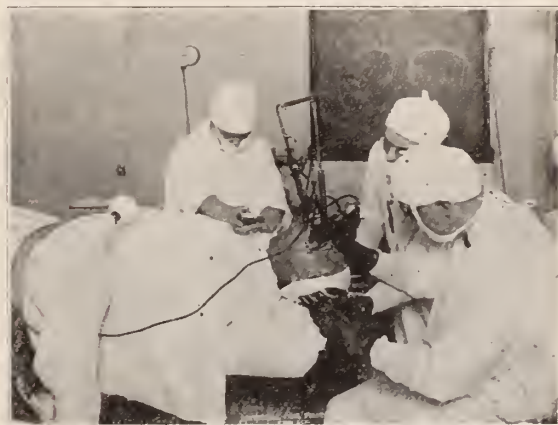


Fig. 1. Patient under suspension laryngoscopy. The electrode is in contact with the tumor.

an utterly impossible agent. The narcosis from nitrous oxide is not of a sufficiently even degree to make it available in this work. Chloroform has proven the most satisfactory anesthetic, despite its reputed dangers which, as a matter of fact, are in a large measure obviated by employing a skilled anesthetist.

The oro-pharynx is easily accessible. The method of approaching the larynx is a more difficult problem. Doyen recommends an exposure of the tumor by laryngotomy. This, we believe, is theoretically and practically an unjustifiable procedure, for by incision of the larynx it is possible to carry the knife deep into the tumor mass accidentally, with the attendant danger of spreading metastases thereby. Suspension laryngoscopy is recommended as the only satisfactory means of exhibiting the tumor mass for operation.

With the larynx properly exposed the factors to be considered in proceeding with the operation are as follows: The active electrode should be

about eight inches in length with the tip of a diameter of one centimeter. Depending upon the actual location of the tumor the electrode is either straight, curved or angular. The round flat electrode tip is most satisfactory. The inactive electrode is a large wet pad secured to the patient's back. The amount of current used depends upon the size and location of the tumor. In general we use from 1000 to 1500 milamperes. The capacity of the apparatus is 4500 milamperes. The length of exposure averages twenty seconds, but is determined by the rate and extent of coagulation. To judge this with some degree of accuracy requires considerable experience.

It is our opinion that fractional coagulation is preferable to coagulation of the entire mass at one time, because the coagulation of a large mass of tissue necessarily results in the formation of

histories will only be possible after a period of years.

CONCLUSIONS

The difficulties of applying electro-coagulation to the larynx are largely technical and can be overcome.

With the perfected apparatus the scope and possibilities have been enormously increased.

Diathermy offers advantages over surgery which are of fundamental importance.

Diathermy plus radiation is superior to diathermy or radiation alone.

The larynx should be approached by suspension laryngoscopy.

Chloroform is the most satisfactory anesthetic.

A preliminary tracheotomy is imperative in all of these cases.

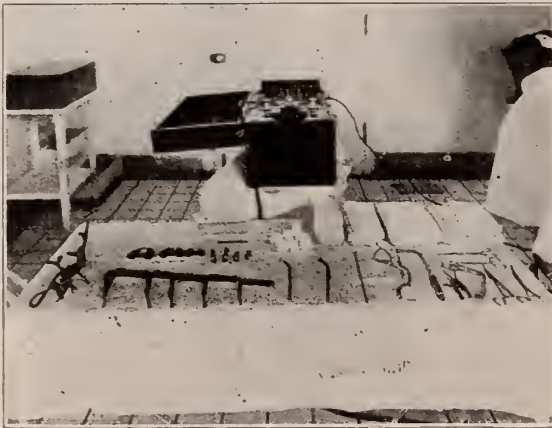


Fig. 2. Instrument tables and the Victor Apparatus.

a large slough. This is undesirable because of the danger of secondary hemorrhage.

Following coagulation the most striking feature in the clinical picture is the spectacular lessening of pain. The case histories at the County Hospital show that the administration of morphine is either greatly diminished or entirely discontinued after the operation. The necrotic mass gradually separates from the uncoagulated tissues within ten days. A smooth hard scar forms in from three to six weeks.

What are the ultimate results? It would be absurd to judge until the cases have been under observation for a long period of time—a period of years. At present then our aim has been to perfect the technic of diathermy as applied to the oro-pharynx and the larynx. A report of case

VISCEROPTOSIS: SYMPTOMS, COMPLICATIONS AND TREATMENT.*

EDGAR EVERETT POOS, M.D.

BELLEVILLE, ILL.

Visceroptosis is a dropping down of the various organs from their normal position. The most common being the stomach and intestines.

Some of its causes are:

1. Relaxed abdominal walls, due to repeated pregnancies.
2. Prolonged nervous depression.
3. Loss of retroperitoneal fat, following wasting diseases or operations.
4. Constipation.
5. Sedentary habits, lack of exercise and constricting corsets.
6. Congenital weakness or deformities, etc.

In visceroptosis the patient generally is of a nervous type. They come in complaining of various symptoms. One of the most common symptoms is flatulence, and a feeling of fullness in the upper abdomen after eating, this being due generally to the fermentation which takes place in the stomach and bowels. To an improper emptying of the stomach due to atony of the musculature with a dilatation causing deficient action of the digestive glands and motor function of the stomach and bowels.

Another symptom is constipation, which is very common, sometimes of the spastic and sometimes the atonic type, the spastic being generally in the

*Read before the St. Clair County Medical Society, December 8, 1921.

tall slim person, while the atonic is most common in the fat person, usually with a pendulous abdomen. Palpitation most common after eating is due to pressure of a dilated stomach and bowels on the solar plexus reflexly causing a stimulation of the accelerator nerve fibres of the heart.

Heartburn in the cases of hyperchlorhydria is due sometimes to errors in the diet; in other cases reflexly due to some distant irritation.

Pain in the abdomen is due to a pressure caused by flatulence and the dropping down of the viscera. The pain over the heart is due to a distention of the stomach from the gas upwards and reflexly through the sympathetic nervous system. A pain in the back is due to the pull on the spinal nerves and vertebræ, often causing a pain similar to a sacroiliac strain with pains down the hips and legs, due to the constant pulling

One of the most common symptoms are various degrees of melancholia, some bordering on insanity. In a few cases there is an excitation.

Headache due to an autointoxication, dizziness, especially on stooping, due to sudden congestion of the head, lack of energy, a feeling of tiredness, and a feeling as if something were dropping down. There is sleepiness during the day, and insomnia at night, which is due to a deficient hepatic function and elimination of toxins. They are unable to think, concentrate or remember, this is due to a cerebral anemia. A coldness of extremities due to deficient circulation caused by loss of tone of the blood-vessels and congestion of the splanchnic blood-vessels of the abdomen. Frequency of urination due to a pressure on the bladder by the distended intestines loaded with fecal matter, also partly to increased congestion of the pelvic blood-vessels. Men often have an enlarged prostate from the same cause. Women have a dysmenorrhea and menorrhagia or a metrorrhagia, which is due to a pressure on the uterus from the weight of the intestines loaded with fecal matter, pushing it down and backward, also to increased congestion of the uterus, etc.

What are the causes of this ptosis? There are various theories.

1. A weakness of the ligaments supporting the various organs.

2. Loss of intra-abdominal pressure.

3. The increased weight of the viscera, such as a distended bowel in constipation.

4. Deficient musculature of abdomen.

5. Loss of tone of the various viscera.

6. There are sometimes more or less of all the above factors entering into the cause, but what I think is the most common cause of all, is the loss of tone of the various viscera.

This tonus is dependent a great deal on the tonus of the vagus and splanchnic nerves which, if stimulated too much, become weakened from overuse, or are a part of a general weakening due to general debility. This lack of tonus causes a vaso dilatation of the abdominal blood-vessels, causing them to fill with blood, therefore causing an anemia of the brain, therefore will have a hypotension due to lack of force of the heart, dilatation of the blood-vessels, etc. There will be a difference of pulse-rate when patient is standing or sitting, the standing pulse-rate being much increased, while systolic pressure will be less while standing instead of more. With this vaso-dilatation there is a stagnation of blood in the abdominal vessels, liver, etc., therefore, there is less blood in circulation, especially in the extremities, head, lungs, etc., causing deficient oxygenation of the blood and elimination of the toxins.

Some tests:—Standing behind the patient, crossing his abdomen with your hands, lift it up and back. The patient will feel much relieved; if you take his pulse, you will notice an increased tone to it, also will find blood pressure increased. Another test is to percuss the abdomen. Normally you will get a tympanitic sound, now lifting the abdomen up and back, then percuss, you will get a dullness. This is present even in normals, but if there is an increase of dullness and more diffuse there is a congestion, sometimes may not have any resonance, but will have a dullness over the entire abdomen.

Diagnosis:—1. Diagnosis is made by the presence of the above symptoms or symptom complex.

2. History of the case.

3. By the appearance of the patient, especially the obese with pendulous abdomens.

4. Careful physical examination.

5. X-ray examination.

Treatment:—Depends upon two main objects.

1. Remove the cause.

2. Tone up the viscera and its muscles, nerves and blood-vessels.

In cases of constipation treat it by a diet rich

in carbohydrates, very little proteins, due to their putrefactive action. Milk and buttermilk are the best articles of food, this is due to the fact that they form the lactic acid bacillus which destroys the pathogenic bacteria of the colon. Treatment of the colon by irrigations and local treatment through the sigmoidoscope.

In anemias use iron, strychnine and arsenic. If the patient is very nervous use the various nerve sedatives, also psychotherapy, but I find that practically all these cases have a focal infection some place. Most commonly the tonsils or the teeth, but oftentimes in the bowels, prostate, bladder, uterus or other places. This relieved, the sympathetic irritation becomes less and your patient improves. If due to sedentary habits, have them walk a great deal, or exercise otherwise, such as bending the body forward, backward and sideways, massage of abdomen, etc.

Supports:—These may be used for a time, either the adhesive plaster support or the various belts that can be had, but they give only temporary relief and instead of making the abdominal wall stronger there is a tendency to weaken it by the continuous use of the support. This same thing occurs in cases of flat foot or round shoulders, where a brace or support is used all the time.

The treatment that I have had the most success with in cases of this type is the *surging sinusoidal current of electricity*, applied to the back below the angle of the scapulas and sometimes one *electrode* over the abdomen. With this you get a rhythmical contraction of the abdominal muscles, also a vasoconstriction of the splanchnic vessels causing an increased circulation to the brain, extremities, etc., also a toning up of the muscles of the intestines and the stomach through the splanchnic nerves.

These patients need a reconstruction period in which to get their nervous system back to normalcy, so all have to be individualized and treated accordingly.

In conclusion I will say that visceroptosis is a very common condition.

They form the class of patients that most doctors hate to see, but they are the ones that make good patients for the chiropractors, osteopaths, Christian Scientists, etc.

It is seldom possible to get the viscera back in normal position even surgically, but you can get

a symptomatic cure, and your patient will be very grateful to you.

SOME SURGICAL ASPECTS OF THE ENDOCRINES*

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SPRINGFIELD, ILL.

In my remarks upon this very interesting, but more or less undeveloped subject, I have made no attempt to review the literature nor to treat the subject exhaustively. What I have to say will be limited almost entirely to the conclusions drawn from personal observations as they relate to diagnosis and to the indications and contra-indications for surgical therapy. A conscientious study of the subject on the part of the surgeon will give him a clearer perspective as to the need for operative treatment and on the other hand will prevent unnecessary operations.

The analysis of symptoms relating to the endocrines and their aberration of function has gradually established a chain or group of symptoms or signs which permits classification into more or less definite clinical types. The lines of demarkation between these types are not always exact and clear and on account of interrelationship there frequently appears a complex picture beyond our ability to decipher. Very naturally when multi-glandular symptoms co-exist, it is far more difficult to solve the riddle than when a single gland is involved. Quite frequently it is difficult to clearly trace disturbance of general body metabolism to the affected glands.

Our knowledge of the thyroid is perhaps better established than that of the other internal glands and it is recognized that acceleration of the metabolic process exists in thyroid hypersecretion; the increase over the average reading in all basal metabolism tests being from ten to seventy-five per cent. In determining the activity of the thyroid a great deal can be gained from the employment of the Goetsch test which is made by the hypodermic injection of a small quantity of epinephrin. In the positive reaction indicative of hyper-thyroidism, there is marked acceleration of the pulse with increased tremor and nervousness and with some effect

*Read before the Illinois State Medical Society, May 18, 1921.

upon the blood pressure. The Goetsch test, incidentally, has become recognized as so distinctly valuable in the differentiation of pulmonary tuberculosis and hyper-thyroidism that it is now employed as a matter of routine in a number of the tuberculosis sanatoria of the better class.

In amenorrhea, where no pelvic pathology is found, but where the patient frequently complains of pelvic pain, the condition may be found to be due to thyroid and pituitary deficiency. The specific influence that one endocrine gland may exercise over another is brought out strikingly in a study of the relationship of the thyroid and pituitary.

In 1917 I first reported before the Tri-State Medical Society at its meeting in Madison, six cases of hyper-thyroidism due to syphilis. Since that time I have treated five similar cases. On account of the frequent absence of a history indicating syphilitic infection, I want to emphasize the importance of a Wassermann test before surgical interference is decided upon. When syphilis is found with a hyper-thyroid syndrome, iodine in large doses is indicated, which is contrary to the rule in Graves' disease.

In myxedema there is a distinct slowing down of the metabolic process. The cases are characterized by pads of fat above the clavicle with general obesity, appearance of senility, apathy, slow digestion and, at times, almost complete loss of hair. In the treatment of myxedema thyroid extract is indicated early, but later in the course of treatment, or in those cases in which treatment has been late, additional glandular therapy must be added. Today post operative myxedema is extremely rare, but where it does exist the accepted treatment consists of the administration of calcium. Para-thyroid extracts are of doubtful benefit and the transplantation of para-thyroid glands when successful is only temporarily helpful.

A study of the functions of the pituitary gland may serve to render many surgical operations unnecessary. In the pre-adolescent hypo-anterior lobe type there is frequently pain over McBurney's point which may be misinterpreted as due to appendicitis and failure to recognize this fact has doubtless led to a large number of unnecessary abdominal operations.

Engelbach has recently reported a number of cases which were subjected to operation after careful examination by excellent clinicians. The

symptoms were not relieved by the removal of the appendix, but some of them were later relieved by anterior lobe therapy. We have observed several of these cases in which pain over McBurney's point aroused suspicion of a diseased appendix and one case where the pain was referred to the region of the kidney. This latter case was referred for operation. After a few months' treatment the symptoms were entirely relieved and the condition improved to a surprising extent. At this time, a year after treatment was begun, the patient appears to be completely well.

In considering the symptoms which may lead one to a mistaken diagnosis of appendicitis, we must bear in mind the hypophyseal syndromes; namely, obesity, most abundant on the abdomen, the buttocks and the proximal portions of the extremities; genital organs, hypoplastic or infantile; hands small and tapering, skin unusually pale, thin soft and smooth. Anterior lobe development influences the gonads with resultant hypoplastic or infantile genital organs, retardation of skeletal growth, mental dullness and polyuria. In the *hypo* cases, we frequently have pain in the right lower abdomen with obesity, scanty menstruation, small hands and feet, large breasts, small pulse and subnormal temperature.

In many cases with symptoms thus outlined, the appendix or the ovaries have been removed, the operations being followed not by recovery, but by distinct exaggeration of the distressing symptoms.

With the hypersecretion of the lobe there may be observed acromegalic syndromes, including broad nose, prominent malar bones, spade shaped hands, large feet and changes in the long bones. At any time when obesity develops it suggests that hyperfunctions have become hypofunctions. In the *hypo* type diabetes insipidus may develop.

A great deal of uncertainty exists concerning the exact function of the suprarenal gland. However, it is shown that with a suprarenal gland which is not functioning properly we may have Addison's disease with its idiopathic anemia, bronzing of the skin and nervous disturbances with later chronic cachexia terminating in death. An insufficiency further predisposes to gastric ulcer and hyperchlorhydria. Patients suffering from Addison's disease are very likely to develop gastric ulcer. Less marked deficiency of the suprarenals is also likely to be responsible

for spastic colon and for syndrome frequently found in tired business men, consisting of lack of endurance, easy fatigue, loss of weight, low blood pressure and, at times, gastro-intestinal upsets.

An enlargement of the thymus gland is not exceedingly rare during childhood. As a rule the tonsils and lymphatic tissue are hypertrophied and many of these cases are pronounced cases of "status thymico lymphaticus." The first thymectomy was done by Rehn in 1896, followed by a similar operation by Konig in 1897. In children I feel that the thymus symptoms are mechanical. Infants breathe noisily with increased difficulty when reclining. The condition is progressive and increased dyspnea, cyanosis, and paroxysms of suffocation are found. There is dullness and may be bulging over the external manubrium and the enlarged thymus may be shown by the radiograph.

The operation of thymectomy is simple. A vertical incision is employed and one may remove a portion of the mass or one entire lobe or a portion of both lobes; no large vessels requiring ligation. One seizes the gland and delivers it from the wound.

I am impressed that in cases of exaggerated dyspnea due to the thymus gland, thymectomy is indicated. It is estimated that in the city of London alone, four hundred patients die annually as a result of hesitation in operating.

Overfunction of the thymus may cause a chronic arterial hypertension pulse. It is also supposed to cause premature puberty and to produce the development of masculine type in woman between the ages of sixteen and twenty so that they become aggressive and over-bearing. Frequently there is some menstrual disturbance at the beginning of the malady. Pseudo-hermaphroditism is also frequently attributed to continued over-function of the cortex. Deranged function of the pancreas productive of diabetes mellitus may be materially relieved, according to Kolisch, by roentgenization. Surgical interference is indicated only in tumor and in acute cases.

In hyperfunction of the gonads, the patient may be tall and thin or fat and pudgy. In the surgical treatment of eunuchoidism, transplantations have been made and this has been looked upon favorably by Musham and Lichtenstern, the majority of observers, however, being very

skeptical as to the benefits that may be obtained.

In presenting to you these very general observations, I merely desire to suggest that it is the part of wisdom for the surgeon to co-operate with the internist since many symptoms which have been generally regarded as surgical indications, assume an entirely different significance after a thorough and conscientious study of the endocrines. Careful analysis in hypopituitary cases may explain suspicious symptoms over McBurney's point. Amenorrhea or scanty menstruation and pain with the absence of pelvic pathology may be due to abnormal function of the pituitary or gonads and will yield to proper glandular therapy, provided the treatment is begun early. In mild hypo adrenalia, as seen in the tired business man, with hyperchlorhydria and spastic colon, surgical interference may be found to be unnecessary and symptoms due to the influence of the internal glands, when thoroughly considered. No diagnosis of the doubtful case is complete until the endocrines have been given thorough consideration.

THE ROENTGEN EXAMINATION OF THE GASTRO-INTESTINAL TRACT*

ADOLPH HARTUNG, M. D.
CHICAGO

No claim to originality is made in any of the following, but in reviewing the subject from a general standpoint it may perhaps be possible to bring out a few points in a new light and emphasize the aid the Roentgen examination can offer in solving some difficult diagnostic problems. It is obviously impossible to give a detailed presentation of all that is implied in the title of my paper in a brief discourse. An effort will be made to give a comprehensive idea of the value of the Roentgen examination in gastro-intestinal conditions, both in a direct and differential way, and to point out the class of cases in which such an examination is especially indicated.

Acute conditions usually contraindicate the giving of an opaque meal and, hence, are unsuited for Roentgen study. The time necessary for it would hardly warrant the added danger if operative measures are indicated. Very excep-

*Read before Englewood Branch Chicago Medical Society, December 6, 1921.

tionally, however, it may be necessary to a correct diagnosis. Thus with an abnormally located appendix the diagnosis of appendicitis might be open to doubt which the giving of a small amount of barium or bismuth could clear in a few hours. Subacute perforations of the stomach or duodenum with localized peritonitis may be sufficiently obscure to justify such an examination.

Secondly, there is the larger number of cases in which the symptoms are sufficiently clean cut to warrant the making of a definite diagnosis clinically. Thus certain gastric ulcers give a typical history as do also some duodenal ulcers, gallstones, recurring mild attacks of appendicitis and mucous colitis. Here the Roentgen examination may give merely confirmatory evidence. However, it may do far more. It can show the exact location and character of the lesion in a way that cannot be determined with anywhere near the accuracy by other means short of the exploratory operation. If properly conducted it may show associated lesions which have been overlooked because of the predominance of one line of symptoms. Thus gastric and duodenal ulcer may be present in the same case, or again an old duodenal ulcer may extend proximally beyond the pylorus and the latter lesion degenerate malignantly, as in a case recently seen. Again, unsuspected gallstones, perigastric adhesions, a pathologic appendix, adhesions to colon, diverticulosis of duodenum and colon may exist coincidentally with ulcer. The determination of these factors may have an important bearing on the treatment to be pursued and may mean all the difference between a successful outcome and failure.

Thirdly, many patients presenting themselves for office consultation for some chronic trouble, complain of more or less gastro-intestinal disturbance and it is often a matter of extreme difficulty to determine whether such symptoms are due to some organic lesion within the tract and in what part of it, or whether they are neuroses secondary to some infective focus or other cause or are reflex or secondary manifestations of disease elsewhere. In a great many of these obscure cases the Roentgen examination gives information which in conjunction with the clinical history and laboratory findings leads to an accurate diagnosis. Such common complaints as constipation may at times be demonstrable as

of organic origin associated with some remediable lesion. Likewise gas accumulations are frequently the cause of persistent and recurring colics; in some of these patients congenital or acquired anomalies and abnormalities may be shown to be responsible for them. In any of the above conditions which do not yield readily to the ordinary medical treatment, the Roentgen examination is indicated.

Just a few words regarding the technique. An opaque salt is, of course, a primary requisite. Barium sulphate is almost universally used. The medium in which it is suspended is not very material; it is advisable to use the same thing constantly if comparative data are wanted. I usually use part water suspension and part buttermilk. It is essential that some medium having food value be used if gastric stasis is to be determined. No preliminary catharsis should be given unless the patient has been markedly constipated, because cathartics alter persistalsis and may give wrong impressions of conditions. The one thing necessary is that the patient present himself with an empty or fasting stomach. If an opaque enema is to be given, the colon should, of course, have been emptied, preferably by a mild cleansing enema. A suspension of barium in cornstarch solution makes an excellent opaque enema. As a rule, examinations of the colon after the meal are preferable because the usual conditions are thus more nearly portrayed. The enema is used in addition when it is impossible to obtain all the desired information with the opaque meal, or if it is desirable to corroborate certain findings about which there is some doubt. Both fluoroscopy and plates or films are used, the one supplementing the other. Of the two, the fluoroscopic study offers by far the more valuable information unless serial plates (50-200) are used, and the expense incurred with these precludes their use in the majority of cases. Every gastro-intestinal examination should be thorough and include the entire tract. This means at least three separate examinations, immediate, six, and twenty-four hours after the meal. At times, other examinations in the intervals or subsequent to the twenty-four hour one are indicated.

Two important procedures should precede every gastro-intestinal examination proper. One is the preliminary fluoroscopic examination of the chest and abdomen. This may disclose an

unsuspected pulmonary or cardiac lesion which may have an important bearing on the symptoms complained of. Diaphragmatic adhesions may be thus disclosed. Rarely kidney or gallstones, fecaliths and calcified glands are visualized; gas distribution in the stomach and intestines may be noted. Following this, at least one plate or film of the abdomen should be made. This will show the presence of concretions with greater frequency and accuracy; it may avoid subsequent errors in interpretations of doubtful shadows. A spondylitis may be detected and the cause for certain pains explained which were ascribed to gastro-intestinal disturbances.

As regards actual conditions encountered, beginning with the esophagus, such intra-esophageal conditions as diverticula and strictures require consideration. Diverticula are readily noted on the screen as sacculations connected with the esophagus. Benign constrictions are differentiated from malignant by a history of traumatism; both show an irregular narrowing with a variable amount of obstruction to the downward passage of the meal. Dysphagia, which is usually the chief symptom with the above conditions, may also be associated with such extra-esophageal lesions as solid mediastinal tumors, aneurysms and abscesses associated with Pott's disease of the spine. All of these may be readily differentiated Roentgenologically. Cardiospasm is shown by abrupt stoppage of the meal before it reaches the stomach; the outline of the lower end of the esophagus is smooth and blunt-nosed, which readily distinguishes it from malignancy. Frequently the lower esophagus is markedly dilated.

As regards the stomach, a few words about the normal stomach shadow may not be amiss. In over 80 per cent it is hook-shaped, in 10-20 per cent cow-horn shaped. Its position is variable, high in stout individuals and low in long thin ones. Size is largely dependent on the amount of meal ingested. For comparison, the same amount of meal (ca. 500 c.c.) must be given, but even here there are errors in estimation, depending on shape. The manner of filling is more important than the size or shape; it indicates whether the stomach is full or empty, the state of tonus of its musculature, and irregularity of contour or filling defects. The emptying time is important. Generally speaking, retention after six hours with normal or exaggerated

peristalsis indicates an organic lesion of the stomach or duodenum.

Anatomic ptosis is common; pathologic ptosis rare. The latter is indicated primarily by stasis. Here it is necessary to rule out obstructive lesions where dilatation and atony may subsequently produce ptosis.

Proceeding to a consideration of organic lesions of the stomach, gastric ulcer of the acute superficial erosion type may show no Roentgen evidence, or at most only presumptive findings such as abnormal peristalsis. This may be in the nature of an inhibition of the wave at the site of the ulcer, a general hyperperistalsis or localized hyperperistalsis, or spasm incisura. There may be localized pain opposite the incisura and gastric stasis from pylorospasm. Chronic ulcers manifest themselves directly by the so-called Haudeck's niche, which is merely the crater or filled-up defect in the wall. There may be any or all of the above-mentioned presumptive or indirect evidences in addition. Perforating ulcers which have extended through the walls show accessory sacs partly filled with the opaque meal, with an air bubble above. Ulcers undergoing malignant degeneration frequently cannot be differentiated from simple ones. Generally speaking, if the ulcer is very large it should be suspected of being malignant. Recently Carman has called attention to a special palpatory technique by means of which overhanging edges of the ulcer can occasionally be demonstrated and he regards this as indicative of malignancy.

Hour-glass constrictions of the stomach associated with ulcer may be of the spastic variety due to incisura, or of organic origin associated with scarring or perigastric adhesions. Usually they assume the shape of the capital letter "B," differing in this respect from carcinomatous constrictions which more often are shaped like an "X."

The essential factor in the diagnosis of gastric cancer is the filling defect. In the fungus type the finger-like projections into the lumen are quite characteristic. The scirrhus type produces marked variation in the shape of the stomach, ranging from the slight constriction of the annular form near the pylorus to so great deformities that no semblance of the usual stomach shape is apparent. The main diagnostic feature of gastric cancer is the fact that the lesion projects

into the lumen. As regards emptying time, this varies greatly from almost complete obstruction and stasis to an excessively rapid evacuation where the pylorus is involved. The possibility of lues should always be considered, for syphilitic lesions occasionally give a picture almost identical with cancer. In addition to the diagnosis of the existence of a malignancy, the Roentgen examination frequently gives information relative to the operability of the condition as judged from location, size and interference with emptying. It can, of course, give no indication of the presence of metastatic involvement of the lymph glands.

Duodenal ulcers judged from the Roentgen experience appear to be far more common than gastric ulcers. Like the latter, the acute forms, often associated with profuse bleeding, frequently give no indication of their presence other than hyperperistalsis. The old chronic forms (and by far the greater number of them, are in the first portion or cap), show filling irregularity and tenderness to pressure. This irregularity, to be diagnostic, must be definite and constant; this usually serves to differentiate them from adhesions from other causes, such as cholecystitis. The stomach may or may not show stasis, depending on the amount of scar formation and obstruction offered. A condition first described by Harris and ascribed to congenital bands causing symptoms simulating duodenal ulcer can be shown Roentgenographically. There is usually a long drawn-out cap with sharp angulation at the junction with the second portion of the duodenum. There may be some cap deformity, usually toward the median line, as brought out by Cole.

Duodenal diverticula are found not infrequently during Roentgen examinations. The symptoms they produce are doubtful. Two cases, recently seen, gave histories strongly resembling ulcer. The diverticula show up as accessory sacs which frequently retain remnants of the opaque meal after the stomach and duodenum are empty of it.

Cholecystitis and cholelithiasis are debatable fields for Roentgen study. Admitting its doubtful value in clean-cut cases, there are, nevertheless, many patients with gastric disturbances in whom the Roentgen examination discloses the condition when its presence was not suspected. The wide variation of percentages of gallstones

demonstrable by the x-ray, as claimed by different investigators, probably has as its basis several factors. One, of course, is the technique employed. Another, is the class of cases examined. In a general Roentgen practice the number of cases examined with a definite clinical diagnosis of gallstones is very small. On the other hand, in some institutions all such cases are examined with the result that stones are frequently found. It is probably a fact that at least 50 per cent. of stones can be demonstrated by using the proper technique. In some additional cases the gall-bladder can be visualized and, according to George, such a gall-bladder is pathological. In still other cases, an enlarged gall-bladder leaves its impression as a pressure filling defect on the stomach or duodenal shadow, and in others the results of infection manifest themselves by adhesions to the stomach, duodenum, or colon. So it can fairly be said that definite information may be obtained in over 75 per cent. of gall-bladder troubles.

Pancreatic lesions such as cysts or malignancies may at times be demonstrated Roentgenologically by causing changed position of parts of the duodenum or obstruction in it, or by pressure filling defects in the stomach shadow. Other extra-gastric tumors, such as hypernephromas and retroperitoneal sarcomas, may also produce the latter finding. Some of these cases are extremely difficult to differentiate, but most of them can be, if sufficient care is taken.

Lesions of the small intestines are infrequently diagnosed by the Roentgen examination. Obstructions can be shown with the attendant stasis proximal to them. Lane's kinks likewise are demonstrable; they do exist, but there is no doubt that the normal angulation of the terminal ileum is frequently mistaken for an abnormal kink. When present, there should be evidence of ileal stasis. As a rule, diagnosis of this condition is closely associated with the diagnosis of a pathologic appendix and its concomitant findings. The normal appendix may be visualized at some time after the six-hour examination in the great majority of cases. Often when it is retrocecal and adherent it shows up best when the cecum is empty of the opaque meal. Fluoroscopy shows it oftener than the film because it permits palpation to bring it into view. Roentgenologic signs of pathology connected with it are abnormal fixation, localized tenderness to pressure over it,

abnormally long retention of its contents, and irregularity of its lumen. Stasis in it points to the fact that it is potentially a source of danger. In association with appendix trouble, adhesions of parts of the ascending and transverse colon, and even the sigmoid, may be demonstrated with the aid of palpation. Adhesions of the colon as well as other parts of the gastro-intestinal tract can at times be better shown by the use of the pneumoperitoneum method. However, its use is only indicated in those cases where the desired information cannot be obtained by the ordinary examination. Although comparatively harmless, several fatalities have been reported incident to its use.

The same remarks which were made in regard to position of the stomach apply to the colon. Variations of location and course are extremely common and in themselves indicate nothing of a pathologic nature. An abnormally long mesenteric attachment may permit of the assumption of markedly different positions at examinations made at different times. Oftentimes large gas accumulations are formed in loops, which cross over each other; it is quite probable that one part pressing on another may cause some interference with the onward passage of its contents. Stasis in the colon should only be ascribed to ptosis after all possible organic causes have been ruled out. A long continued stasis may induce a pericolicitis with adhesions that can be demonstrated. Spasticity is indicated by the accumulation of isolated masses; mucous colitis by long stringy shadows.

Diverticula of the colon have been shown to be far more frequent than was formerly thought. They may or may not cause symptoms. At times they lead to such marked inflammatory changes as to cause sufficient narrowing of the lumen of the gut to mistake the condition for malignancy. Cancer of the colon usually shows up as an irregular filling defect with a variable amount of obstruction to the onward passage of the contents. Frequently examination must be made both by means of the opaque meal and enema to make a definite diagnosis.

Tuberculous infections may show themselves in the form of ulcers of the stomach, in which case they cannot be differentiated from any other gastric ulcer, from the Roentgen standpoint. A common location of involvement in the intestines is the cecum and Brown has shown that cecal

hyperperistalsis is a frequent finding in these cases. An associated pulmonary tuberculosis found with either of the above conditions will necessarily render the diagnosis more probable. Tuberculous peritonitis with plastic adhesions shows fairly characteristic findings such as deformities in outline of stomach and intestines and marked irregularity in the distribution of the meal in the intestines due to interference with peristalsis in some location.

Lastly, the Roentgen examination may disclose anomalies and abnormalities of the gastro-intestinal tract which may or may not have been suspected. Situs inversus may thus be shown. Changed locations of parts of the tract may lead to wrong inferences as to the nature of the trouble; thus an anomalously-placed appendix may cause symptoms on the left side or in the right upper quadrant. Hernia of the stomach or colon, whether of traumatic or other origin, can be readily recognized. Eventration of the diaphragm, which is usually congenital in origin, likewise is easily demonstrated.

25 E. Washington Street.

ACUTE ANEURYSMS.*

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No apology need be offered for presenting the subject of aneurysms at this time. As an aftermath of the war they will be found to be of more frequent occurrence, due either to an increase in the number of syphilitic infections or to trauma of the blood-vessels.

As a rule, aneurysms develop by gradual dilatation of a portion of the arterial wall which is either diseased or weakened by trauma. There are, however, a goodly number which may hardly be said to come on gradually. Recent experience or attention to current surgical literature has familiarized most of us with the traumatic aneurysms and the arteriovenous aneurysms which develop as a result of bullet or shell fragment injury to the coats of blood-vessels. These two types, in many ways similar to the cases presented in this paper, present problems peculiar to themselves and must be omitted in the present discussion.

The cases which form the basis for this paper

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occupy a rather unique place in the classification of aneurysms, and in using the term "acute aneurysm," the same liberty is taken as in the use of the oft criticized yet familiar term "acute abdomen."

Brief histories of a few cases may bring out the interesting features of these rapidly developing vessel disturbances and facilitate a closer study of this particular group.

Case. 1. L. S., a colored male, aged 38 years, was admitted to my service Feb. 26, 1920. Ten days previous to this, while standing at his work, he felt a slight pain on the inner side of his right thigh, and on examination he discovered a small nodule which he took to be a swollen gland.

During the next three or four days this nodule rapidly enlarged, until by the eighth day it was as large as a golf ball. A throbbing sensation was present in the swelling and a pain extended down to the knee. On the morning of the tenth day, while standing at a counter, he experienced a stabbing pain in the leg, became dizzy, and fell to the floor. On admission to the hospital his right thigh measured 32 inches in circumference and gave a distinct expansile pulsation on palpation. The left thigh measured only 22 inches in circumference.

The patient's previous history presents little of interest save the fact that during the summer preceding he worked in an ice cream plant where in handling the crushed ice it was his custom to use the inner side of his right thigh to brace against the handle of the shovel. He uses tobacco and has been a moderate user of alcohol. He denies syphilis. Wassermann proved to be a 4 plus reaction.

Operation: Under ether anesthesia an incision similar to the usual inguinal hernia incision was made and the external iliac vessel was ligated with a broad silk tape. A second incision was then made over the course of the common femoral artery. Several pints of dark blood and clots were evacuated and the ruptured aneurysm sac exposed. The upper limit of the sac was just distal to the profunda femoris. Double ligation with silk was made at each extremity of the sac and the sac dissected out. The temporary ligature of the external iliac was then removed and the first incision closed in layers. The second incision was closed with interrupted stitches and a small cigarette drain inserted to drain the serum accumulation.

Post-operative course: Anti-syphilitic treatment was immediately instituted and pushed to point of tolerance. Evidences of peripheral gangrene were apparent after one week and amputation above the ankle became necessary. An excellent weight-bearing stump was secured. The pressure of the extravasated blood probably contributed greatly to the production of the gangrene.

Case 2. J. O., Russian laborer, aged 45 years, was admitted to Cook County Hospital August 27, 1917, with a diagnosis of abscess of the thigh. The patient stated that two weeks before admission he first no-

ticed a swelling of the right thigh accompanied by pain. No history of recent trauma nor infection was given, but the patient volunteered the information that his using of his right thigh to support a wheelbarrow in his daily work might have some bearing on his present complaint.

On examination a mass presented on the inner and posterior surface of the thigh. The mass was round, smooth, and seemed softer in spots. No marked tenderness was present and no decided pulsation could be felt.

Operation: Temporary ligation of the femoral artery in Hunter's Canal was first accomplished, then the tumor mass was incised and the blood clot turned out. Double ligatures were then applied above and below the sac. The sac was not dissected out in this case, but was packed with gauze. Microscopic examination of a section of the sac wall showed no characteristic changes.

Post-operative course: The wound drained for some time. No gangrene appeared and the patient left the hospital two months later.

Case 3. L. N., colored, male, aged 49 years, employed as a laborer, was admitted to Cook County Hospital, February 2, 1920, complaining of pain in the right knee, swelling of the leg, and difficulty in walking. He stated that eighteen years ago he fell and injured his right knee, but had had little trouble with leg until three weeks ago, when his leg began to swell very rapidly and to give him severe pain. He had a chancre twenty years ago and was treated for two weeks.

Examination of right leg showed some edema below the knee. There was an expansile pulsating tumor in the popliteal space which was as large as a hen's egg. Further examination showed the patient to be suffering from a popliteal aneurysm. He also had an aortic aneurysm. The patient was very uncomfortable and restless and insisted on leaving the hospital before any treatment could be instituted.

From the foregoing histories certain facts arrest our attention and some of these we shall discuss very briefly.

Etiological Factors. 1. *Trauma.* Constantly recurring slight trauma seems to be as potent as does a single severe injury. The sites of these vessel injuries apparently serve as points of lowered resistance to future infections. Barwell was familiar with the importance of oft-repeated slight trauma and offered this in explanation of the greater frequency of popliteal over brachial aneurysm. I may also mention here that the trauma may antedate the aneurysm by many years, as was the fact in Case 3.

2. *Syphilis.* A history of syphilis is present in a large majority of such cases, but even where no history of a chancre is obtainable, the Wassermann test is usually positive. Active lesions of

syphilis are sometimes present elsewhere on the body. If I were to express my opinion unreservedly I should designate this particular group of cases as *arteriectasis due to localized arteritis syphilitica*.

3. *Alcoholism*. Probably has some part in the causation of arterial degeneration and may possibly have a part in these rather rapidly developing cases. Martinet, in discussing aneurysms of the aorta, remarks that the "ethylate of syphilis" (syphilis plus alcoholism) is particularly dangerous.

4. *Stress and Strain*. These are probably determinative factors which only become prominent when arterial disease is present.

Clinical History. It is not surprising that a number of errors in diagnosis are recorded in this group of cases because we have been taught to regard aneurysms as of slow development extending over months or years. How different are the pictures presented by this group.

Rheumatism, hernia, abscess and neuralgia are not uncommon diagnoses made in the atypical aneurysms.

Symptoms. After development these cases are in no wise different from the regular types of aneurysm with which we are familiar. The clinical manifestations are dependent upon the physical characteristics of the aneurysmal sac and the pressure exerted upon surrounding structures.

Course and Termination. The only point of interest here is the tendency of these rapidly developing types to spontaneous rupture.

Pathology. We were able to secure a specimen from the arterial wall of one case which we operated on. The specimen was excised from the proximal part of the aneurysmal sac near the normal vessel. The microscopic examination showed a dense, round-celled infiltration of the vessel layers. Hyaline degeneration and marked round-celled proliferation was noted surrounding the vasa-vasorum. Warthin has described in detail specific changes in arteries. I am sorry that I did not stain my section for spirochetæ as Manouilian was able to demonstrate the spirocheta pallida in several cases of aortic aneurysm. In his cases the spirochetæ were found in much the same relation as occur in typical gummata. It should be stated that the acute aneurysms are always saccular in type, the vessel wall ballooning out as does a weak area in an overinflated inner tube. Early the sacs may be completely lined by

endothelial cells, but tearing and shredding of the intima soon occurs and the media and adventitia may likewise give way, creating a dissecting or false aneurysm.

Prophylactic. It is surely not out of place to emphasize at this time the necessity of early and thorough anti-syphilitic treatment as an insurance against these formidable vessel changes. It might be well to stress the fact that where a patient is syphilitic, relatively slight traumas to the vessel walls may lead to disastrous results.

The history of one of my cases emphasizes the necessity of examining the blood of patients who have had fractures, particularly where the fragments of bone might have traumatized neighboring large vessels.

Active. 1. *Medical*. Although I doubt the value of medical treatment alone in any aneurysm, it may have a certain value when combined with proper surgical procedures. Castellano in a recent communication describes a clinical cure following rest in bed, milk diet, and a weekly injection of 60 c.c. of a gelatinized serum. Mercurial treatment should be given all cases where a suspicion of syphilis exists.

2. *Surgical*. I have no intention of going into detail regarding the advantages and disadvantages of the various methods of treating aneurysms. I shall confine my remarks to a few facts pertinent to this particular group of cases.

1. Where rupture of an aneurysm has occurred immediate operation is imperative. Where possible means of temporary compression should be resorted to while the patient receives an infusion of normal salt solution or a transfusion of blood from a suitable donor. It should be borne in mind that bleeding into the tissues of an extremity greatly increases the danger of subsequent gangrene.

2. *Treatment of aneurysmal sac*. These rapidly developing sacs are not suited to endo-arteriorraphy after the method of Matas, on account of the friable condition of the vessel walls. Where rupture has occurred, proximal and distal ligation with dissection of the sac, is probably the safest course to follow.

Ligation of the corresponding vein. Recently many surgeons (Halsted, Drummond, Neuhof and St. John) have advocated ligation of the accompanying vein. LaRoque in the *Annals of Surgery* states: "There is a genuine reason for believing that vein ligation favors the develop-

ment of collateral vessels and through retention of blood volume and pressure aids enlargement of vessels already present." Dobrovolskaia in his discussion of wounds of blood-vessels states that in eighteen cases in which the vein was simultaneously ligated no advantage was apparent. In one case there was aseptic gangrene of the leg muscles after ligation of the popliteal vein, although the foot remained normal, as the subcutaneous venous system apparently maintained its circulation. With such diametrically opposite views it leaves one in doubt about vein ligation. Further work and careful observations may clear up this point.

Post-operative Management. I can do no better here than quote from Flannery and Tormey: "The wound should have a large, soft, sterile dressing applied. The extremity allowed to lie in its natural position. Splints are contraindicated. Heat should be supplied by therapeutic light and not by hot water bottles for obvious reasons."

CONCLUSIONS.

1. Rapidly developing aneurysms are not uncommon.
2. The treatment is as yet not standardized.
3. Syphilis should be suspected in all cases and treatment immediately instituted.
4. The friable condition of the arterial walls contraindicates plastic vessel work.
5. Delay for the purpose of increasing collateral circulation is not justifiable.
6. Early operation is desired where tissues are infiltrated with blood.

DISCUSSION.

(Abstract.)

Dr. Carl B. Davis, Chicago, agreed with the speaker excepting about the collateral circulation. He felt that giving these patients a little more time after the aneurysm first appears would save more people. A few weeks ago a man was injured by a piece of metal which was shot into his neck, the internal or external carotid being injured. After three weeks he developed a rapidly forming aneurysm. Because of softening of the brain with 12 per cent. mortality in ligation of the carotid, we delayed between three and four weeks and then ligated the common carotid.

Dr. E. H. Weld, Rockford was especially interested in the fact that these cases are frequently luetic and the particular reference that was made of the importance of looking into the luetic history in fracture cases. It should be very common practice to make a Wassermann test in every fracture case.

Dr. R. W. McNealy, Chicago (closing): In answer

to Dr. Davis' question about collateral circulation, the work that has been done on the vessels in the collateral circulation is very interesting and would really take up all the time to discuss it alone. The belief in the formation of this collateral circulation has been given a great deal of study, but no one has given a demonstration of blood flowing uphill in the arteries. That was the old-fashioned theory of collateral circulation in the anterior vessels of the aorta. In the circle of Willis we know these vessels form a perfect circle. There are certain vessels in the posterior group which really inosculate and where a direct communication exists, but the particular thought in the collateral circulation is the old idea of anastomosis, about the hip for instance, where the vessels terminate in small capillary areas. It is a question whether they really form any sort of synapsis, as we speak of in neurology. That has never been demonstrated. In the vessels such as Dr. Davis mentions where there is a definite circle there should be no question about the advisability of waiting before ligating.

In answer to Dr. Weld's question about dissection or compression, I believe in the femoral—and the greatest mortality occurs in the lower femoral, if you have ever seen one of these ruptures and seen the thigh as tense as it is and measuring, as in one I saw, 32 inches in circumference, I believe you would rather not attempt compression unless you were sure, because the patient is in a very anemic condition from loss of blood and you feel that you should conserve every drop of blood and compression on an area that is all edematous as is found here, is rather questionable. You do not feel at all sure that you would have a complete compression of the femoral artery. If you make the compression and the assistant slips, you lose a great deal of blood and you lose the patient on the table before you can make more compression. It is absolutely impossible to grasp those vessels with the artery forceps because they are so friable. I feel you should go in above where you know you have a better field and can feel perfectly secure and where there is less danger of losing a great quantity of blood.

In regard to dissecting out the sac, if you do not dissect out the sac you have this ruptured artery at the bottom of the wound, which is very likely to become infected. I think if you follow out the method of war work—debridement; and get rid of all the loose tissues, you will get better results.

PRACTICAL POINTS IN TONSILLECTOMY.*

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CHICAGO.

A careful history should be obtained of the patient in reference to whether he is a bleeder, or whether there is any particular contraindication why the operation should not be performed.

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A general physical examination of the patient is advisable, including the heart, kidneys, lungs and coagulation of the blood index.

The important points which suggest themselves to me are *when* the operation should be done, *where* the operation should be done, *how* the operation should be done, and *after treatment* and the *end results*.

In the decision of when the operation should be done one must decide if the tonsils are diseased and constitute a menace to the health of the patient. If they are a menace to the health I believe that the tonsils should be removed at any age. One very important indication for the removal of the tonsils is when there is an accompanying inflammation of the submaxillary and cervical glands. It is true that an adenitis may be the result of focal infections at the apex of a tooth or from adenoids. As a general proposition I have found that when the lymphatic glands are involved in connection with disease of the teeth there is trouble which directs the attention of the patient to the local infection, and when adenoids are causing the adenitis usually the glands situated farther back on the neck are involved.

The old custom of only removing diseased tonsils when they show great hypertrophy has disappeared to a great extent because it is found that sclerosed, contracted and shrunk or submerged tonsils frequently cause more systemic disturbance than the large lymphoid variety. Almost invariably in the small fibrous variety of tonsils the mouths of the crypts have become occluded from adhesive inflammation and the infected caseous material in the crypts of the tonsils is unable to gain exit. This condition especially obtains when the crypts open at a superior level. If the crypts are horizontal or inclined downwards usually the drainage is more complete and there is less danger of the crypts becoming occluded. Where the mucous membrane has grown over the mouths of the occluded crypts one may see the white, yellowish or greenish caseous material glistening through the overlying membrane. When these tonsils are removed the crypts are found filled with infected material as stated above, or pus.

Another very important indication for the removal of tonsils is when the anterior pillars of the palate are inflamed. I have not seen a case in which the anterior pillars were inflamed but

what the tonsils were found badly diseased, and frequently a large amount of liquid pus is found occupying the crypts of the tonsils. We find in the small shrunk type of tonsil that the red satiny appearance in the anterior pillar is usually associated with the more serious articular affections which are frequently relieved very promptly by tonsillectomy. Also otalgia or otitis media may require tonsillectomy.

Some advocate the removal of the tonsils only; others the removal of the tonsils and the capsule. Personally, I believe that the removal of the tonsils without the capsule is not as satisfactory as tonsillectomy, including the removal of the entire capsule. I believe all cases of quinsy should be followed by complete removal of the tonsils, otherwise the quinsy is almost certain to recur.

In some cases we find infection of the faucial tonsils, the lingual tonsils and the pharyngeal tonsils, or adenoids, otherwise known as Waldeyer's ring.

Thirty years ago it was considered extremely dangerous to remove tonsils from adults and people past middle age, but my experience has been that such patients get along just as well as younger people, recover just as quickly and the results are very gratifying. Hemorrhage is not any more liable to occur in them than in younger people.

Where the Operation Should be Done. There are four places where tonsillectomies are performed—at the physician's office, at the patient's home, in the clinic and in the hospital. To my mind, the hospital is unquestionably and immeasurably the superior place for the safety of the patient and for the convenience and protection of the physician. It is true that many tonsillectomies are done in the office, at the patient's home, or in the outpatient clinic, and it is also true that many deaths have no doubt occurred and severe secondary hemorrhages on account of the patient's physical exertion in reaching home, causing increased heart's action, which could have been avoided if the patient could have been transferred from the operating table to his bed in the hospital. I remember a remark made by the late Dr. Pynchon at a meeting of the A. M. A. in which he said that he had never worried over a case of tonsillectomy that he had performed in a hospital and that he had never operated on a case elsewhere that he did not worry over it. The hospital presents so many decided advantages

in the way of having an experienced anesthetist, trained nurses to sterilize instruments and hand them to the operating surgeon, and trained assistants to assist in the removal of saliva and blood from the patient's throat by means of the suction apparatus.

The facts are that in order to do the best work the patient should be profoundly anesthetized and all voluntary reflexes abolished. This enables the surgeon to handle any hemorrhage that occurs to much better advantage, and saves time contending with gagging and wrenching of the patient.

It is highly desirable for the patient to remain in the hospital at least one day and longer if circumstances will permit, as the most unfavorable condition that is encountered occurs during the first three days. At the expiration of this time all acute soreness and pain have usually subsided, and by the end of a week there is seldom any serious inconvenience, and at the end of two weeks the throat is usually entirely healed.

When the patient leaves the hospital I advise him to go home in a conveyance and not exert himself, as stated previously, on account of possible danger of bringing on hemorrhage.

How the Operation Should be Done. One encounters advocates of removing the tonsils by the use of a local anesthetic, no anesthetic, and general anesthesia. In regard to the question of operating without any anesthetic, I believe the cases are rare in which such procedure is advisable or necessary. Many excellent operations are done by very competent men by the use of local anesthesia, but it is frequently necessary to exercise care and judgment in selecting people whose nerves will not give way under this trying ordeal. Personally, I prefer the general anesthetic where it is carefully given as at the present time. I have not had any deaths from general anesthesia in thirty-three years.

The open-air drop method seems to be comparatively free from any danger. The only objection is that it is rather slow. The patient really gets more air than he needs, but this objection is all on the side of safety. I have also noticed sometimes that when ether was given the patient kept waking up even though apparently large quantities were administered, and after testing out the apparatus repeatedly I discovered that the suction apparatus for removing the blood and saliva was not only removing the blood and

saliva, but was also sucking the ether from out the patient's mouth and the patient was really not getting the ether.

I believe that chloroform is the ideal anesthetic for the removal of tonsils and adenoids, as it does not stimulate the salivary and bronchial secretions, but it seems to have gone out of style in the last twenty years and it is rare now to find an anesthetist who has had experience in giving it.

I have repeatedly had patients anesthetized with nitrous oxide gas previous to the use of ether, but really, I do not see much advantage in this.

I believe that the safest anesthetic is ether. In certain cases, immediate death has followed the use of a local anesthetic, and it is probable that this may have been caused by the injection of the anesthetic directly into the blood-vessels.

Another reason for using the general anesthetic is that practically all cases of diseased tonsils are accompanied by adenoids, and by giving the general anesthetic one may not only remove the tonsils, but the adenoids at the same time, with much less strain on the patient than if a local anesthetic were used.

A good mouth gag is invaluable. There are numerous devices. The Whitehead generally answers every purpose, although the Ferguson gives more room for operating, and there is less danger of injuring the teeth if it is in the hands of an assistant who will insure its retention.

Tongue depressors are worth attention. The most important thing to avoid is the pushing of the epiglottis down over the larynx and interfering with the patient's breathing and taking the anesthetic. This can be avoided somewhat by not having the blade of the tongue depressor too long, or by having it perforated so that if it is inadvertently placed over the larynx the air can still get in.

The next important thing facilitating the operation is to have the assistant place the tongue depressor at the side of the tongue, making a gentle downward and forward motion so as to expose the lower part of the tonsil. Also the same thing when you are dealing with hemorrhage. A good preliminary step is to have a pair of tonsil-grasping forceps that are efficient. There are a great many varieties and some work better on one type of tonsil, some on another. A perfect grasp of the tonsil facilitates the operation to a great degree. It enables the operator to divide the capsule over the anterior and posterior pillar

and the supratonsillar fossa with more precision. The tonsil grasping forceps should have an opening in the handle rings so that if a snare is used it can be slipped over easily.

Bacteriological examinations have demonstrated that the most frequent infection is caused by the hemolytic streptococcus.

I usually remove the tonsils previous to performing the operation on the adenoids.

There are a great variety of knives and scissors used for the purpose of separating the tonsils in the capsule from the surrounding tissues. As a general thing, each operator has a preference for a certain instrument. It is not so important which particular knife is used, as that the operator be familiar with it, in order to obtain the desired results.

There is one instrument that is needed which, no doubt, some one will invent before long, and that is an instrument for everting the anterior pillar and which will not take up too much room in the mouth. This would greatly facilitate the separation of the tonsil from the fossa and subsequently enable one to deal with hemorrhage to much better advantage, by having a good view of the tonsillar fossa. I believe an instrument that would evert the anterior pillar properly and at the same time clamp off the blood-vessels, somewhat the same as the eyelid clamps, which are used in chalazion, would be highly desirable.

I am a firm believer in the principle of ligating any bleeding vessels in which the bleeding does not promptly subside under the ordinary means of compression with a gauze sponge.

An inspection of the capsule on the removal of the tonsils will readily indicate the exact location of the severed blood-vessels. By ligating these principal bleeders the patient is rendered much safer, and it also saves the physician much annoyance.

I usually treat the patients for about two weeks after a tonsillectomy. I have invariably found that singers are benefited by tonsillectomy. In all cases in which the tonsils were diseased I have found the patient's health improved after tonsillectomy.

31 N. State Street.

DISCUSSION.

Dr. H. C. Ballenger, Chicago: In children I believe the history is more important than the appearance of the tonsils. With most children, the examinations are very similar, except the question of size of the tonsils.

In adults, I believe the individual examination gives you as much information as the past history. I just want to emphasize the question of large glands as an indication for removal of tonsils.

Dr. A. E. Walters, Springfield: The doctor mentioned the subject of bleeding. I have coagulation tests made on all my patients. If the coagulation is not around three minutes, I give medicines to increase the coagulation, and I find that the hemorrhage afterwards is practically nil.

CAMPAIGN FOR THE PREVENTION OF SYPHILIS.*

ARTHUR WM. STILLIANS, M. D.
CHICAGO.

One of the real contributions to the welfare of mankind that can be attributed to the World War is the definite speeding up of the campaign against venereal disease. It is true that the movement had made a beginning before the war, but the importance attached to this group of diseases in relation to our immense new army awakened general interest in their prevention as nothing else could have done. This interest, aroused by the fear of their lessening the efficiency of the troops, has been continued since the armistice by the natural fear of an increase of disease among the civil population upon disbanding of the army. Such has always been the aftermath of wars, and has been reported from various European countries since the recent war. In Gaucher's clinic in Paris syphilis had more than doubled in amount by the end of 1916. Pautrier estimates that as a result of the increase of syphilis France will lose in birth rate enough to equal 400,000 men of the army classes of 1935 to 1945. The United States alone escaped. Among our 4,000,000 troops it is estimated that we had but 60,000 cases of venereal disease, including the cases contracted after the armistice, when there was a decided let down in morale. The increase among the civil population has not been noticeable in private or clinic practice, in my experience.

In two chief respects syphilis differs from other diseases whose eradication is attempted. First, it is considered a venereal disease, although in a considerable proportion of the cases it is distinctly non-venereal. Because of this unjustified classification and the uncharitable attitude of

*Read before the Illinois State Medical Society, May 18, 1921.

society toward the syphilitic, there is a strong tendency toward concealment, which makes doubly difficult the detection of cases, their isolation and the success of a system of reporting as mild even as ours, with no disclosure of names.

In the second place, syphilis itself is a great hinder. Its ability to remain concealed constitutes its chief danger. If it were always manifested by violent early symptoms, which refused to disappear until the cure of the disease, the danger would be much less. On the contrary, three weeks pass after infection without the slightest sign of trouble, the chancre may be concealed in the urethra or vagina, or may be such an insignificant-looking pimple that it is disregarded, the secondary eruption may be hardly noticeable and easily escape detection. The doubly unlucky one whose early symptoms are so slight may go for years unaware that he has any disease, and then suddenly be made conscious of it by severely destructive organic involvement. Even after the diagnosis is known, it is hard to convince the patient that he still needs treatment when his eruption has disappeared and he feels as well as he ever did. It is common for patients to return with recurrent syphilis, sometimes mild, too often severe, and acknowledge that they quit treatment against the doctor's advice, because they could not believe that they were not well. What is more to the point of our present discussion, these recurrences during the first years may be highly infectious.

The importance of syphilis has been so often emphasized that it is not necessary to dwell upon it here at length. Estimates of its frequency vary from 5 to 20 per cent. of the general population. The difficulty in obtaining statistics is to obtain them for a large series fairly representing the general public, including the known sick and the supposed well, without favor to any class. In the Chicago Lying-In Hospital, our series of Wassermann reactions upon supposedly healthy pregnant women have given about 3.5 per cent. in private practice and 10 per cent. in charity practice. The small number of active syphilitics giving a negative Wassermann reaction, the accepted fact that the rate is higher in men than in women, the much higher rate among the sick, would bring the average, I believe, well above 5 per cent. The late Sir Wm. Osler rated syphilis as highest in mortality of all infections of civilians in temperate climates. Life insurance companies figure

the mortality of syphilitics 70 per cent. higher than the average. A large share of infant mortality, blindness and deafness, severe nervous disease and insanity can be justly blamed to syphilis.

Stokes¹ divides the essentials of the program of the campaign into those measures generally accepted as advisable, and those not so accepted. In the first class he placed:

1. First-class treatment made available to all.
2. Aids to diagnosis made available to all.
3. Suppression of quacks, drug store treatment and advertising of cures.
4. Moral and educational prophylaxis and vigorous suppression of prostitution.

In the second class he cites:

1. General instruction in prophylaxis for the population at large.
2. Compulsory measures and penalties obliging patients to receive and continue treatment regardless of their own desires.
3. Notification to health authorities.
4. Indirect legislation to prevent marriage of the venereally infected, either by releasing the physician from the bond of professional confidence, or requiring health certificates before marriage and annulment of the marriage if the infection is discovered.

The limits of this paper will not allow a full discussion of all these points, even if I felt competent to discuss them all. Among those classed as not generally approved by authorities on the subject, the third, notification to health officers, is already in force in 43 of the states, in most of them, as in Illinois, a moderate law requiring no names. As the medical profession realizes that the law calls for no violation of professional confidence so long as the patient plays fair with himself and the physician, but does afford an additional argument against neglect of treatment, the response of the profession is generally improving. Thirteen thousand two hundred and twenty-two cases of syphilis were reported last year in our state, against 4,825 reported in 1919.²

The general knowledge of prophylactic measures has made considerable progress, and its further diffusion, if discreetly managed, is to be desired. In 1772, the French expelled Guy de

1. Stokes, J. N.: *The Third Great Plague*, Page 168.

2. For this information, I must thank Dr. I. D. Rawlings, State Director of Public Health.

Preval from the list of Regent Doctors of the Faculty of Paris because his proposed lotion for the prevention of venereal infection "opened the door to prostitution and produced an upheaval that would do harm to the population, to common sense and to the purity of morals." It would seem that common sense was even more uncommon in those days than in ours. Medical prophylaxis against syphilis, the application of the Metchnikoff ointment within an hour of exposure, is a very efficient measure and deserves a wider use than it has yet had. More than eight hours after exposure nothing should be expected of it, nor can it be expected at any time to prevent gonorrhea or chancroids. After it is too late for the Metchnikoff ointment to be of value, one or more injections of arsphenamin, as urged by Michel and Goodman³ can be resorted to. Every clinic, every physician's office, should be a prophylactic station against syphilis, and the use of these measures should be urged upon all those who have been exposed to infection or who fear that they have been so exposed, at the same time counselling the only safe and sure prevention, sexual abstinence. The public should be informed that there are ways of preventing this disease, which any doctor can apply. Syphilis is distinctly preventable,⁴ and no prudish notions should be allowed to stand in the way of the movement to make it one of the rare diseases, instead of the most common. No moral upheaval has so far resulted from this part of our campaign, and we may, I believe, trust in the common sense of those conducting the campaign to prevent any harm from it.

Thanks to the activity of the U. S. Public Health Service, drug store prescribing and the sale of patent remedies for venereal disease by voluntary action of the druggists themselves, has nearly ceased. Quacks are much less numerous, and lead a much more precarious existence than formerly. Prostitution has been lessened and made more difficult, and the better enforcement of the prohibition laws in the large cities would be a still greater help to this part of the work. The follow-up work of a good social service, to help the girls leaving hospitals and reform schools is highly desirable.

Among all the methods used against syphilis,

the first two mentioned by Stokes (*loc. cit.*) have been accepted by all as the most practical and the most easily applied. Modern treatment so quickly makes the syphilitic non-infectious and safe for ordinary social contacts that our first and most earnest efforts have been to persuade all syphilitics to avail themselves of the benefits of treatment, and to provide efficient diagnosis and treatment for all. Beside the many day clinics in Chicago, there are now five municipal clinics and four other evening clinics. In eight of the smaller cities of the state are eight clinics devoted to anti-venereal work. While a proper equipment, suitable quarters, and efficient nurses are of great importance, the real value of these centers of attack against syphilis depends upon the personnel of the clinical and social service departments. As Leredde⁵ says, it is more important that the doctor in this work have a good grounding in general medicine than that he should be an expert dermatologist. Syphilis is so general in its attack upon the human organism, so frequently involves the cardio-vascular and nervous systems, that only a man whose training has given him a broad knowledge of general medicine can do justice to the work. Special work in dermatology should, of course, not be neglected in preparation for the position. All the valuable laboratory tests must be easily available, but reliance upon them for diagnosis, rather than as aids to a clinical diagnosis, needs to be decried at this time, when the tendency seems quite prevalent to consider the serologist the final authority upon the treatment, as well as the diagnosis of this difficult and complicated disorder.

Another evil tendency of the day, apparently derived from the need in army practice for systematizing the work, is the idea that the proper way to treat syphilis is to "line 'em up and shoot 'em quick." Such ideas are pernicious enough in relation to any army of young men in full vigor, under a regime of physical development. They are absolutely inexcusable in civil practice, whether private or charity. The character of the patient, his environment, his general physical and mental condition must receive careful consideration if our treatment is to be the most efficient. Clinic patients are often, because of bad

3. Michel, L.L., and Goodman, H.: Prophylaxis of Syphilis with Arsphenamin, *Jour. A. M. A.*, 1920, vol. LXXV, 1768-1770.

4. Snow, W. F.: The Preventive Campaign Against Venereal Disease, *A. M. A. Bulletin*, 1914, LX, 4, pp. 188.

5. Leredde, E.: The Organization of the Campaign Against Syphilis in France, *Internat. Jour. of Pub. Health*, vol. 2, 1921, p. 28.

environment, carelessness and ignorance, much less resistant than the average, and deserve our best efforts just as much as the private clientele. Intravenous medication is major medicine, much more dangerous than ordinary medication, and no possible precaution against mishap should be overlooked. It is important, as Leredde (*loc. cit.*) says, that the patient should always be met by his own doctor, that he may benefit by the doctor's knowledge of his case and his personality, and as well by the faith he has acquired in the doctor's knowledge and interest in him. The clinician should, moreover, be a teacher as well, for these clinics offer the most valuable material for the teaching of syphilology, a subject as important as any in medicine, yet almost wholly neglected in the past and not yet given its just place either in undergraduate or post-graduate curricula. If Leredde (*loc. cit.*) considers it necessary to emphasize this need in France, which has led the world in the teaching of this subject, certainly our need is much greater. The present undergraduate student of medicine is being stuffed with many less essential articles, while his mental digestion is absolutely inadequate to the task of preparing him, even in five years, for the biggest job in the world, the work of a general practitioner of medicine. Post-graduate work in syphilology should be made as easily as possible available. In Chicago, it seems to me, a concentration of the material into the teaching clinics would be desirable.

In the follow-up of syphilitics, one of the most important factors in the success of treatment, the social service department is indispensable. It is important in all branches of preventive medicine, but seems to me of especial value in the one under discussion. Not alone the correction of the tendency to neglect treatment, but the discovery of unsuspected latent cases and the education of the public can be done in no better way. Moreover, conscientious social service, better than any other agency, can guard against the pauperizing of these patients and consequent financial loss to medicine, to say nothing of the injury to the patient himself and to the state. There is no reason known to the writer why charity should be indiscriminate with syphilitics more than with other patients, except that there is the temptation to use free treatment as a bait to induce them to continue. This is seldom necessary. In fact, many early syphilitics, young and without de-

pendents, can easily assume the expense of treatment, which should always be adapted to their ability. All available charity should be kept for the deserving needy, which are much too often found among the families with congenital syphilis and especially the late nervous and cardio-vascular cases. I look to social service, properly administered, to do much toward solving the problem of the abuse of clinics by those well able to pay the doctor.

Social service demands the highest of qualifications. The mental caliber and the training necessary to the understanding of the peculiar medical and economic problems involved, the ability to teach the ignorant what they should know, a broad sympathy, good judgment and great tact are among the requirements, and it is not difficult to realize that the wage offered at the present time is no particular attraction to the high-class personnel which the work needs. So important is this department, so potent for evil if wrongly administered, for good if well managed, that the movement already on foot to require state registration of social workers can be heartily commended.

The campaign against syphilis is well under way and has already accomplished much more than I have felt justified in mentioning in this paper. For instance, the education of the public, a problem that seemed at first a staggering one, is being solved. Though I would gladly believe it, I must doubt the enthusiastic claim of one neurologist, that nervous syphilis is on the wane. It would seem to me that it is too early for such a result to be evident. The continued co-operation of nation, state and the medical profession makes eventual success a certainty.

Thanks are due Dr. Lee A. Stone, chief of the Bureau of Hospital, Social and Industrial Hygiene, of the Chicago Department of Health, for the loan of literature and valuable advice.

DISCUSSION.

Dr. Mason, Decatur, wished to emphasize the point that follow-up work is the prime essential in the control of syphilis. He was sure that the work would not have succeeded in Decatur if it had not been for the work of the nurse.

Dr. Burdick, Chicago, noted there has been some action taken to quarantine females, which is compulsory; and would like to know what has been done to the males.

Dr. Stillians: I am sorry I cannot answer Dr. Burdick's question. So far as I know there is no pro-

vision made for the quarantine, but we try to keep them until they are non-infectious.

Dr. Burdick: Just when does that time come when they are not infectious?

Dr. Stillians: About twenty-four hours after they get their first dose.

Dr. Burdick: Do you get a negative Wassermann at that time?

Dr. Stillians: No, but spirochetes disappear from the moist lesions often in a few hours' time after the first injection of arsphenamin.

Dr. Stillians, Chicago (closing his part of the discussion): I am glad to hear the follow-up work emphasized. There is not enough cooperation with the social service department. In Chicago at least, it is not given enough power and we are not able to follow up our male cases at all, and it is one of the most important parts of our work.

OCULAR MANIFESTATION OF SYPHILIS.*

EDWARD F. GARRAGHAN, A. M., M. D.
CHICAGO.

There are many atypical forms of syphilis and there are many individuals who have been infected with syphilis and who have lived the allotted span of life and who have never manifested any of the symptoms or signs usually presented in this disease. The initial lesion is often never observed by the patient. However, it certainly appears, runs its course often very mild and then disappears with the patient wholly ignorant of its presence. The same may be said of the secondary stage or stage of eruption. Especially in our line of work it is very rare for us to get a history of eruption, for the patient will often and, I believe honestly, disclaim any knowledge of a secondary eruption. The object which I have presented to myself in this paper is to lay special emphasis upon the great importance in our treatment of disease of the eye, of always keeping in mind the possibility of syphilitic taint. We remove a foreign body from the eye and the patient makes a rapid and uneventful recovery. But this same little foreign body may be the exciting cause of a severe inflammation which may terminate in the destruction of the eyeball. The foreign body may be the means of stirring up an old syphilitic taint which had been quiescent for years and it only remained for the slight ocular injury to set in motion the destructive elements of the disease. These facts have been impressed upon me on different occasions, but the two fol-

lowing cases exemplify very well the point which I wish to express.

Mr. H., aged 40 years, janitor, was sent to me by his family physician to remove a foreign body imbedded in the cornea and which the Doctor could not remove after much effort. The history was that on the same morning the patient had been using a hammer to nail some boards and shortly after his eye began to hurt as if there was something in it. The Doctor had used the foreign body spud, but without avail. On examination of the eyeball a black speck could be distinctly seen imbedded very deeply in the cornea. There was no pain or tenderness on palpation of the eyeball nor was there any tension. The eye was cocaineized and an effort was made to remove the foreign body. It seemed a simple matter to reach the foreign body and still after many attempts I decided that to continue would surely invite a perforation and disaster. I tried the magnet, thinking that it might be a small piece of steel, but there was no response. I decided to put the eye at rest with bandage and bichloride ointment in the hope that the irritation would soon subside. In about forty-eight hours the eye showed signs of iritis and a most painful condition developed which required the use of morphin for relief.

The patient then stated that one year before the eye became slightly red with some pain and an oculist had given him some medicine which caused the inflammation to subside in a couple of days. He denied any syphilitic infection and his family Doctor, who sent him to me, was very skeptical about any syphilis being present. I have always made it a point to have a Wassermann test made in every case of iritis and a test was made in this case which proved to be four * * * positive reaction. The patient was given salvarsan followed by mercury and iodides and the eye cleared up as if by magic in a few days. The black speck is still to be seen imbedded very deeply in the cornea, but there is no irritation in the eye. On being shown proof of infection the patient was able to recall a possible infection many years ago. A Wassermann test was also made of his wife and the result was strongly positive.

The second case was that of Mr. P., whose eye had been sore for several days while on the road. In this case a loose eyelash was imbedded beneath the upper lid and irritating the eyeball. On the eyeball there was a well-defined dendritic ulcer.

*Read at 71st Annual Meeting of the Illinois State Medical Society at Springfield, May 18, 1921.

No history of syphilis could be obtained from the patient. Owing to a history of early malarial infection the dendritic ulcer was treated on that basis, but did not show much improvement. There was very severe continuous pain and the ulcer began to show deep infiltration. A Wassermann test was then made and the result was a two * * positive reaction. Several salvarsan injections were given, followed by the usual anti-syphilitic treatment and the symptoms gradually cleared.

In the first case I feel that the patient probably lost a year in the treatment of his case because what was evidently an ocular manifestation of syphilis the year previous was treated by the oculist without ascertaining the underlying cause of the inflammation.

In both cases a syphilitic history was denied, but in each case the foreign body was the exciting cause which stirred up an old syphilitic taint which had been dormant in the individual for years.

DISCUSSION.

Dr. W. R. Eringer, Rockford: In the search for the etiology of eye diseases we must be good internists. The etiology necessarily means the logical treatment. We have infections and toxemias from many sources within the body, as well as from without. Then we have the constitutional diseases, tuberculosis and syphilis, that must always be borne in mind.

Arnold Knapp in his excellent work, "Medical Ophthalmology," makes the statement that syphilis causes about two per cent. of all eye diseases. Of the syphilitic eye diseases the uvea is involved in 43 per cent., the optic nerve in 24 per cent., the ocular muscles in 15 per cent., the retina, cornea, etc., making up the remainder.

There are certain eye conditions that always make us think of syphilis as a probable cause. An iritis, of the secondary stage. In the later stages, inequality of the pupils—the Argyll-Robertson pupil. An inflammation of the disc, or a choked disc, frequently indicates a brain tumor of syphilitic origin. A sudden paralysis of one of the external muscles, especially of the external rectus, is a manifestation of syphilis in 70 per cent. of the cases.

In the first case he had nothing to explain the iritis until he wrung from the patient the admission of a previous attack. Then he had sufficient evidence to arouse his suspicion, and he rightfully insisted on a Wassermann.

Many men are inclined to class dendritic ulcers as of neuropathic origin, if not to malaria. The case reported did not do well. A positive Wassermann followed by anti-syphilitic treatment proved again that many eye diseases without any symptoms or history of syphilis that we can obtain from the patient are due to syphilis.

I believe that in any eye disease in which there is the least possible doubt as to the etiology, or if the case does not do well, one should insist on a Wassermann, spinal puncture, or some reliable syphilitic test. Even then, if it were negative, I should not, in many cases, hesitate to give anti-syphilitic treatment, as the tests, at the maximum, are not reliable in more than eighty per cent.

A negative Wassermann does not always mean an absence of syphilis. In some general hospitals it is a matter of routine to make a Wassermann on every patient. I do not believe we can quite exact that in every eye case, but we certainly should not hesitate to insist on one if there is any possible doubt.

Some years ago a young married woman, who had been a refractive patient of mine for several years, came to me with a sudden paralysis of an external rectus. I did not go into her history very thoroughly with her. I requested a doctor to get some blood to send to a Chicago laboratory for a Wassermann. Her arm was fat, and she was of the neurotic type, so we did not get the Wassermann. I saw her family physician, and he told me that she had had no children, but had had several miscarriages. I sent her to the hospital and in a short time she was taking 200 grains of potassium iodide three times daily and having an inunction of a drachm of mercury every evening. She was doing well until a former nurse and the wife of a Chicago physician came to see her and looked at her chart. This busy-body then went to the superintendent of the hospital and told her that I was treating this patient for syphilis—that she knew both the patient and her husband, and knew that neither of them had ever had syphilis, and she further informed the husband and the wife's family to the same effect. This patient was at once taken to Chicago to two excellent men, and had numerous Wassermans and spinal punctures, which were, of course, negative; but they kept up my line of treatment with the addition of salvarsan. She made a perfect recovery.

I relate this case to impress upon you the importance of fortifying yourselves in these cases with a Wassermann or similar test and, furthermore, to emphasize the fact that no one has so exalted a position that he should be exempt. Saint or sinner should be subject to the same rule. You will be surprised at the number of positive Wassermans you get among the saints.

THE RELATION OF SURGERY TO GROUP PRACTICE.*

EDWARD H. WELD, M. D.

ROCKFORD CLINIC, ROCKFORD, ILL.

Medical and surgical practice is still in the developmental stage. At the present time, the subject of group practice is of keen interest to everyone. Co-operative work in medicine, however, is not new, and whether you believe in group

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medicine or not, it is something that you have been doing ever since you began the practice of your profession. Every conscientious physician in the past has had consultations for seriously sick patients. The trend of medical and surgical practice at the present time is to secure some means by which such consultations can be more easily made and be more profitable to the patient.

The fundamental principle that should be foremost with every doctor is to render the best possible service to the patient. Today we ask ourselves, "How can we improve the medical and surgical services that we give our patients?" The answer frequently heard is, "systematize the work." Yet, we are told, that many factories fail because they have too much system. The factory that can tell you the exact cost of driving every nail into the cabinet is not necessarily the successful institution. Therefore, any system that we develop should be practical and economical. We all agree that the practice of medicine and surgery in the past has not been conducted on a business basis. Physician's fees are generally not paid because the physician does not keep accurate accounts; does not send out statements, nor try to collect his honest dues.

Medicine of today is as different from the medicine of two generations ago as the manufacturing business of today is different from the manufacturing business of two generations ago. It is as different as the school system of today is different from the school system of fifty years ago. Far be it from me to belittle the influence, the service and the benefit that the general practitioner has rendered and does render to his community. I often think of a statement made by a well-known doctor who, in addressing a graduating class of medical students, said:

"Few of you will receive advanced degrees. There will be few, if any, LL.D.'s and other honorary titles. Most of you will soon enter upon the busy life of a general practitioner. But there is one degree which is open to all of you, and that degree is a degree which is the highest honor any one can ever attain. It is to be known in your community as 'our Doctor'; or, it is to be pointed out by possibly only a few as 'my Doctor.'"

Theoretically, every physician should have at his disposal a complete laboratory equipment, a complete x-ray equipment, and be able to perform all the various tests that are necessary to

make an accurate diagnosis. This is not practical for two reasons: first, because medicine is too broad a subject for one man to cover in all its various aspects; and, second, because of the expense and time required.

We know that our old country school teacher, who gave not only high school, but even college work to his students, secured wonderful results. But at the present time we would not be satisfied with his work when compared with the well organized high school and collegiate courses. Neither do we expect the general practitioner of today to make as accurate a diagnosis as is done in some well organized group. Occasionally, our best organized group finds that the general practitioner has slipped one over on them when it comes to making a diagnosis. Therefore, I do not believe that group medicine should leave the general practitioner out of consideration. Billings states: "If group practice is to succeed in the sense of improvement of medical service in any given community, then the policy pursued must include efficient service and fair dealing with the whole public, both lay and medical."

At the present time we have frequent consultations, but there is little co-operative work among physicians and surgeons. I believe that in every town where there is more than one physician, they should work in organized groups instead of competing with each other. Competition is especially noticeable in small towns of two physicians. Not because the jealousies and ill-will are any more pronounced there, but because, owing to the smallness of the place, they are far more noticeable.

There are three reasons why group medicine should succeed. First, the patient can receive better medical service than is possible through the effort of one individual. Second, the physicians themselves get more satisfaction out of and a larger ultimate return for their work. The third, and one of the greatest reasons why group medicine should succeed, is because it develops the individual physician. It gets him out of the rut and makes him advance. Why is it that many a city of one hundred physicians has not produced or brought forth any nationally known men? Why is it that they have not developed a great surgeon, internist, or scientist? Why is it that they have not added something of real value to medical science? Why is it that more of them are not asked to appear before our national or inter-

national societies? Is it because their mentality, and their mental age, is below that of the men in the largest and best known surgical diagnostic groups? No. Is it because they have not had as good premedical, medical and surgical training? No. Is it because they do not have the clinical material? No. Is it because they do not have the hospital advantages? No. It is because they are all general practitioners unorganized, both among themselves and in hospitals, and because they are in the throes of active competitive practice of medicine and surgery.

Our present-day methods of securing consultation on a case are unsatisfactory. Because, first, it is frequently inconvenient to secure such consultation; second, adequate consultation in the various branches is expensive, and third, it is often impractical to properly correlate the points that are brought out by the various consultants in making the final summary of the patient's condition.

It is often difficult to give the patient the full benefit of your consultation work, because under the existing system of competitive medicine the previous diagnosis and treatment of the general practitioner has to be protected and taken into consideration. The specialist may be more concerned about his own glory and large fee than he is about the reputation and fee of his colleague; or, *vice versa*, the practitioner may be more exercised over his own reputation than he is over the welfare of his patient and, therefore, resents any frank expression of opinion, no matter how carefully and tactfully it may be presented.

It is surprising to note how freely criticisms may be made of one another's work in group practice, and how cheerfully an individual may take advice and suggestions from the consultant when there is no financial consideration to be gained, when it is all in the family, and everyone realizes that the work by all parties is made with one idea, and one only, and that is the benefit of the patient. It gets to be a game and you can have real fun trying to check up one another, in putting one over, if possible, on the other fellow when you are seeing cases together, because when you put one over on him today you know and realize that he may put one over on you tomorrow. You can meet together and frankly talk over the results. If you disagree you are stimulated to make more careful examination and then possibly

prove which is right on the operating table, or may be able to follow the case to the ultimate ending of all seriously sick, and the pathologist may decide the correctness of your observations. If you eliminate the competitive spirit, with its financial consideration, medicine becomes a most glorious and wonderful profession.

Did you ever stop to analyze the mental impressions you formulate when you see your patient for the first time? A man comes in with a sprained foot. You say to yourself, "If I send this man to have Dr. A. take an x-ray of his foot, the patient will have to wait until he can get an appointment. Then I will have to wait until tomorrow for the report. Besides, it will cost the patient \$5.00 and I don't believe he has much more than that and I ought to get something out of it myself. Probably the x-ray won't show any fracture anyway. I'll just treat this as a sprain and let it go at that."

Or, a patient comes in and you wonder whether he has pernicious anemia or syphilis. You are busy and it requires some time to make a differential blood count or examine for lues. You reason, "If I send him to the clinical laboratory to have a complete blood and stomach examination, and to the neurologist to have neurological examination, when he finally gets back to me he will have spent a considerable sum of money. Probably when I get the reports they will be hard to correlate." Therefore, you guess at the patient's condition.

Negative laboratory reports are probably the greatest reason why more conscientious work is not done. We often run a hundred negative Wassermann's before we find a positive one. Yet frequently, by doing routine Wassermann's we discover syphilis in cases where we least suspected it. If we are to give efficient medical service we must treat the patient as a whole. I have no sympathy for the specialist who is so highly specialized that he tries to forget everything that he ever knew about other branches of medicine, or the man who says, "I'm a surgeon, I know nothing about children's diseases," or, "I am a gynecologist, I know nothing about neurology." One of the keenest dermatologists I have ever known would make, I believe, one of the best general practitioners that any community could have. He is an expert diagnostician.

There is decided tendency on the part of our

medical schools to graduate not men who are versed in the general practice of medicine, but men who have specialized from their sophomore year on.

Dr. Carroll, former professor of ophthalmology in the University of Michigan, once stated that the man who would become a real specialist was the man who had first had several years of general practice. This may not be entirely true at the present time, but it certainly is true that our specialists should not forget that they are treating a patient whose health is dependent upon the normal function of all the organs of the body, and that patient must be treated as a whole.

I do not mean to overestimate the advantages of complete clinical laboratories and of other modern diagnostic methods. A careful history, combined with a careful physical examination, has always been, and still is, of prime importance in making a diagnosis, but that does not eliminate the necessity of the general practitioner's having at his command expert laboratory and consultation service.

There are three causes for group failure.

First, no recognized head.

Second, an uneven division of the money received; and,

Third, incompatibility.

Regarding the first, I believe it is absolutely essential that every group should have a recognized head, just as every bank has its president and every factory its manager. If we are to systematize medicine and put it on a business basis, we must adopt business principles. A medical group should have its board of directors, with its chairman, where the different problems of the group may be freely discussed and decisions arrived at.

Second, as regards the financial investment, there is a large difference of opinion. These conditions are met with in business, are settled satisfactorily, and the business succeeds. The general rule has been that the surgeon receives the larger end of the fee. I think this is unjust. W. J. Mayo says: "Surgery should be brought back where it belongs, a means of mechanical therapy in conjunction with medicine, and should not continue in competition with the internist as it has in the past."

Billings states: "We must induce the surgeons to return to the medical fold and to co-operate in the attempt to improve the opportunities and

the facilities for the practice of the general practitioner; and, further, how the problem may be solved must be studied and determined by a group of physicians, surgeons and specialists, who will approach the subject with a desire to afford justice for all concerned, including the lay public."

Either we receive too much pay for the surgery that we do, or the medical man does not receive enough for his work. The result of this system of division has been to make ninety surgeons out of every hundred doctors. This is true in our community, and I believe it is true in your community. The young man when he starts in practice at first refers his work to some surgeon of note in his community whom he assists. Then he finds that some other surgeon in his community will divide the fee for the operation with him. The natural tendency is for him to send his surgery there until finally he develops his own technic and concludes that he will do his surgery himself. Consequently, we have over ninety per cent of the physicians in every community doing their own surgery, just as they do their own obstetrics, their own laboratory work and their own internal medicine.

There are several ways of dividing the fees that may be collected by any group. First, the group may have a common waiting-room and each individual collect his own fee from the patient. The patients when admitted either select their physician of choice or are sent to the department their illness indicates. This system is fair in that it allows every man to receive pay for the work that he has done and there is no question about the financial returns that are due him. It is, however, but little improvement over the present method of sending patients to various consultants, except that the consultants in this instance are all under one roof. The man who receives the neurological case in such a group might hesitate to send the patient to the various departments for laboratory work or consultation just as he would if he were practicing separately and for the same reasons.

A second method of dividing fees consists in allowing each man a percentage fee determined by the amount of business the year before he entered the group, or by the amount of business he does while he is in the group. This is fair, but it brings up a competitive spirit which is not always pleasant.

A third method consists in dividing equally part of the fee, say fifty per cent, and the balance according to a percentage basis determined as above.

A fourth method consists in paying each member a designated pre-determined salary and then dividing the profits. I believe that the age of co-operative business has arrived when everyone connected with any business organization should receive a proportion of the profits.

The scheme that we follow in our clinic is to first pay all expenses, such as rent of building, light, heat, supplies, physicians' salaries, clerk hire, etc.; then divide one-half of the net profits among the members of the partnership; after that we take ten per cent. out of the net profits for permanent improvements; the balance we divide among everyone who works for the clinic on a definite percentage basis. To illustrate, suppose we collect \$6,000 this month and our expenses are \$2,000. This leaves a balance of \$4,000. Fifty per cent. of this, or \$2,000, would go to the members of the firm. Ten per cent., or \$400, would go into a permanent improvement or sinking fund. The balance of forty per cent., or \$1,600, would be divided among every person working for the firm, on a percentage basis of one per cent. for every hundred dollars salary that they draw; so that a stenographer who is drawing a salary of \$100 per month would receive a bonus at the end of the month of \$16. Physicians hired on a salary may receive a bonus on a pre-determined percentage, which is sometimes higher than the one per cent. for each \$100 salary they draw. By this method everyone connected with the organization profits by every dollar that we receive, even though only a fraction of a cent. Still in the long run it means that they are definitely interested in the success of the institution. It is to their interest to see that every patient is satisfied, and that every patient gets the best possible medical service that we are able to give.

The third reason for group failure—that of incompatibility of its members—is one that has been fought out among all other lines of business. Partnerships are a give and take proposition. Every man in every partnership or in every group has his faults. There has to be a leveling process to make such partnerships a success. Every individual has to be absolutely fair and honest in his dealings with the other members and in his

dealings with the patients. Group medicine is similar to marriage, except that in marriage you have only one wife. It is a question of adjustment. The older the man and the longer he has been in private practice, the harder it is for him to adjust himself to the conditions of group practice.

We know of the benefits that the patient is to receive from group medicine. But what about the benefits the physician himself is to receive by such an association? The great satisfaction, the real fun of the game consists in doing your part well—the best that it can be done. We all make mistakes. But the man who is associated in a group where he has consultants see the patient, and these consultants give, in writing, their opinions and suggestions, that doctor has had a part of the responsibility lifted from his shoulders, especially if he is the surgeon and it is decided to operate on the case. The medical department, the x-ray department, the laboratory department, all share in the responsibility of sending that patient to the operating table. I do not say that an association of physicians in group work will never make mistakes. But I do say that any given body of men, whether they are specialists or men in general practice, who have the welfare of the patient at heart, will, by forming into one co-operative group and by pooling their scientific knowledge, make fewer mistakes than they would make practicing individually.

Can a group of general practitioners go to bed tonight as general practitioners and wake up in the morning as specialists? In a measure they can. Each man can select the branch he prefers and gradually develop it.

Group medicine does not mean that a few men clique themselves together and give out the impression that they are far better than their fellow practitioners. If group medicine does its part, it will have an elevating influence upon the entire practice of medicine and surgery done in that community. But what of the general practitioner, the man who gets up in the middle of the night? Are we to set ourselves up as superior members of our profession and invite him to send us all his referred work without giving him any benefits that may accrue from our affiliation? No, I believe the general practitioner has a recognized place in every group. Whatever your system of medical practice is, the general prac-

itioner has to be a part of it. When a baby is sick someone has to go to the house and see it; and that baby deserves the best possible medical and surgical care that the community can give. The general practitioner should have at his disposal not only accurate clinical and x-ray laboratories, but the privilege of expert medical and surgical advice. This can best be secured if he has an affiliation with a well organized group, men with whom he is accustomed to work, and a group in which he has actually a part.

I know of one general practitioner who would have been only a fair physician if he had been practicing in the average community, but this physician is located in a community where there is a large diagnostic and surgical group. When he gets a patient that puzzles him he either sends the patient to the diagnostic group for a complete diagnosis or calls in a consultant from this group. If his patient is to be operated on he is always present at the operation, never assisting, but he sees the patient occasionally at the hospital during his convalescence, and when the patient goes home he takes charge of his after care. That physician by his close following of the case is able to give his patient much better medical service than he otherwise could; and, further, by his association with the diagnostic group he has gradually advanced his knowledge until he is one of the best general practitioners that community ever boasted of.

I would speak of that physician as an associate member of the group, and as such, I believe, he is entitled to some financial interest in the organization. I do not believe in the so-called "splitting" of fees. I do not believe that we should have a hundred obstetricians to every hundred physicians; I do not believe that we should have a hundred surgeons to every hundred physicians. But I do believe that the general practitioner should have his diagnostic consultation and surgical work done by a group in which he is financially interested. Why? First, because he will be able to render better medical service to his people; and second, because he will improve his own talents decidedly by such an association. The environment of a man has much to do with his development as a physician and a surgeon. The bulk of our profession never produce, never develop, and leave their profession without having added anything to the sum total of its knowledge. It is true that they render efficient service

to their clientele. They get in a rut because they do not have the opportunity, inclination and proper environment in which to develop. I believe that you can take every hundredth name that you will find in the American Medical Directory until you have selected fifty men, and if you can group them together so that there will be a co-operation of their knowledge and work you will have the making of a very good diagnostic and surgical group. I believe that every community has good, honest, reliable physicians. If they can correlate and co-operate and divide their work, they will not only give their community efficient service, but they will be an honor to the medical profession. They will produce a lasting and permanent impression upon its sum total of knowledge.

The group which I visualize, is a group where the various departments will be filled with competent men and where the general practitioners of the community will be known as associate members. They will have weekly staff meetings where the literature of the day is reviewed, and scientific papers prepared by the members themselves are read. They will have weekly or bi-weekly history meetings in which the different interesting histories of the week can be discussed. These staff meetings and history meetings shall be attended by the members of the clinic and the associate members. The associate members shall keep histories of their patients which are uniform with the histories kept by the clinic. If you can teach the general practitioner to keep written reports, he will, by so doing, form the habit of painstaking care and thoroughness, and such painstaking care and thoroughness frequently make a diagnosis easy and simplifies the problem of therapy. When an associate member sends a patient to the clinic for diagnosis, he either sends in his own history or a résumé of his findings and his impressions, and indicates the amount and kind of laboratory work that is to be done. If possible, when this patient has been worked up by the members of the clinic, consultation with the associate member is to be arranged so that the patient may receive the benefit of the knowledge of the general practitioner or associate member, who has known him perhaps since babyhood, knows his environment and the mental and physical strain under which he exists. That general practitioner's advice and counsel can never be disregarded if we are to hold to our

motto of rendering the best possible medical service to our patients.

Now what about the finances? There are medical men, many of them, who honestly believe in the division of fees between the surgeon and the internist, providing the patient knows that there is such a division. I would propose that out of the moneys received from the patient the clinic first pay its expenses; then the clinic take one-half of the net profits for itself, and the remaining fifty per cent. of the net profits to be divided among everyone that sent any work whatsoever to the clinic. In other words, if the clinic collected \$3,000 this month, which was all referred work from associate members A and B, then the clinic would pay its expenses, say \$1,000, one-half of the remaining \$2,000 would be kept by the clinic and the balance of \$1,000 would be between A and B, pro rated according to volume of work referred by A or B.

If we are to have better medical service for the whole community we must and should co-operate with the general practitioner.

Again quoting Billings: "Group practice must deal in a broad-minded, unselfish and sympathetic manner with the physician in the district which it serves. If he does not belong to the group, he should be invited to profit by and through its facilities in diagnosis and otherwise, if he desires it."

Group medicine is not necessarily a money making enterprise. If physicians are looking toward such an association purely from a financial standpoint, they will be disappointed, especially during the first few years a group is in operation. If they are making complete and careful examinations, they will find that it will be very hard to make the medical department pay dividends. They will receive their financial returns largely from the surgery they do; and they must put the financial returns into the background and work with an unselfish interest for the betterment of the patient. If they are working primarily for the benefit of the patient I thoroughly believe they will have the greatest satisfaction from such co-operative work.

If health centers and community hospitals are to be established, they should be controlled absolutely by the physicians of their locality. The physicians should organize so as to control the health activities themselves. The state may di-

rect the general sanitation but it should not treat the sick.

The relation of surgery to group medicine must be that of intimate co-operation. The surgeon of today is largely responsible for the fact that everyone does his own surgery, for he has been working independently in the past. He should, however, fully recognize the importance to himself of co-operating with every branch of medical science. Group medicine offers him a chance to become fully trained in surgery, and it makes a satisfactory adjustment whereby he can co-operate with the internist, the clinical laboratory worker, the pathologist, and the general practitioner, and they can all receive their share of the honor, glory and financial returns of caring for the sick. Group medicine places the subject of surgery on the solid foundation that has been laid by medicine and the allied sciences, and surgery can no longer be thought of as a profession apart from medicine.

There is need for organization among the medical fraternity, and the elimination of competition. That organization should be conducted among ourselves and by ourselves. Group medicine should mean a scientific pooling of knowledge for the welfare of the sick, a co-operation of effort by the internist, the surgeon, the specialist, the bio-chemist and physicist; and last, but not least, a co-operation with the man who cares for the bulk of the sick—the general practitioner.

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SOME REMARKS CONCERNING COMPENSATION FOR OCULAR INJURIES*

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This paper is written partly in the hopes of drawing attention to some of the difficulties that have been observed in eye and ear litigation in the prosecution of corporations by injured employees before State Industrial Commissions. It should be admitted at the start that such commissions have amply demonstrated their usefulness and necessity, even under adverse conditions. Petty claims for damages can be speedily settled before such informal tribunals without the waste of time and money necessarily expended in trials before higher courts, where the dockets are already clogged by innumerable cases that can only be reached after a very long and indefinite period. But it must not be forgotten that trials before the industrial commissions are not final in their outcome, for either side of the controversy can appeal to a higher court for a further decision if, for any reason, they desire to do so.

In order that the decisions of such commissions shall be reasonably just and satisfactory, the commissioners themselves should be men of high character and intelligence, possessed of fair, unprejudiced and unbiased minds, and should not be composed largely of either the employer or employee class of men; there should be a fair division of both. Cases heard by industrial commissions are mostly instances of injured men, prosecuting their employers for physical disability. It is but natural that a commissioner, who has been a laboring man, should have sympathy for those who labor and that a commissioner, who has been an employer of labor, should sympathize with other employers of labor. It is merely contended that commissions should not be practically composed of men of either one class or the other; there should be a fair intermingling of both. Commissions in some states are composed largely of ex-laboring men who have received such positions by gubernatorial preferment. Such men, although honest, will probably, with the best intentions in the world, quite naturally, sometimes render decisions that seem to favor the laboring classes, thus giving

the commission the reputation of a class bias, prejudicial to its usefulness as a judicial body. Commissions should not and I believe usually do not lean either one way or the other in rendering decisions; they should be open-minded and should decide cases on their merits without fear, sympathy or favor. Any other course, if continued, will detract from the reputation of industrial commissions in general and will ultimately necessitate their abandonment on the ground of unfairness and incompetency.

Commissioners should remember that if they desire a permanent continuation of such semi-judicial bodies, and if they do not desire the humiliation of a frequent reversal of their opinions by the higher courts, their decisions must be based on an absolutely impartial consideration of the cases that are tried before them. Sentimentalists and partisans may argue that the poor laborer should be given the advantage in such trials; that he has a family to support; that he has been injured while working for some wealthy corporation; that he is poor, needy and unfortunate, etc. Other equally illogical but prejudiced individuals may say, on the other hand, that the man was well paid for his services; that he accepted the job voluntarily; that the employer has a hard time paying expenses and making a profit; that the law was hard on the employer, etc. Both sides of the argument are wrong and pernicious. Cases should be decided on their merits and according to the law without regard to sentiment or class prejudice. No other course can produce permanently satisfactory results and unless this course is followed the useful and desirable industrial commissions will have to go and litigations, both large and small, will revert back to the higher courts or some other methods of adjusting small claims will be devised.

The medical expert is sometimes discouraged at the lack of credence given his testimony. Assuming that the commission believes in his honesty, skill and intelligence, it is sometimes difficult to understand the verdict. For instance, a man suffers a comparatively slight blow on the head. In about a month he brings suit for a bad ear that he claims dated from the accident. Examination discloses a profuse foul discharge from the ear with polypi, necrosis and deafness—conditions impossible to have occurred in so few weeks. Testimony is given accordingly and

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yet a verdict in favor of the plaintiff is given. Another instance is that of a man claiming profound deafness in one ear, who by the malingering test is found to be grossly deceiving and yet he received a verdict. Another man claimed excessively poor vision in one eye and was proved to be a falsifier by malingering tests; he also was awarded damages. Other instances similar to these might be enumerated, but these are sufficient to show that something is wrong with the system when it is possible for proven and sinister imposters to go into court and obtain damages for injuries that competent and honest medical testimony has proven to be non-existent. I will not attempt to analyze the source of defect. It may be class prejudice, or ignorance, or non-judicial temperament, or illogical conclusions, or something else; I do not know. But I am sure that this evil sometimes exists, whatever it is, and I am also certain that unless it is purged out of the system, the existence of these highly desirable, informal, semi-judicial courts will be in extreme danger.

I trust that it will not be considered that I am asking for the appointment of supermen to the office of Commissioners. Neither do I wish to be understood as believing that mistaken judgment is inconsistent with perfect honesty and intelligence. Commissioners are not trained lawyers and sometimes not even well educated men, and the only wonder is that they do so well and perform such satisfactory work. Personally I have always been treated with the greatest courtesy and consideration by the industrial commission of my own state and I wish to make it plain that I am *not* criticising the Illinois Commissioners; in fact, I have two other states in my mind in writing this article. As a matter of fact I do not wish to criticise *any* set of Commissioners in particular. I am simply reciting some of the errors in the system, believing that Commissioners will be quite as anxious to receive suggestions and act upon them as honest observers are to advance them. Industrial commissions are a new thing and, of course open to much justifiable criticism. Imperfections will never be overcome without open and fair-minded discussion instigated, *not* from captious and prejudiced criticism, but from an honest desire to improve the system and insure its perpetuity. May I be pardoned in passing if I refer to a law concerning visual losses that

is most unfair and illogical to all parties concerned and has from time to time resulted in working much hardship to both employer and employee. It seems that if a man, who is already blind in one eye, loses the other eye while in employment, the employer is liable for the loss of *both* eyes. This seems almost incredible but it is true nevertheless. It is, of course, merely common sense to require an employer to be only responsible for the eye that is lost while the worker is employed by the employer and yet the law holds him liable for both. It has been suggested that an applicant for work, who possesses only one seeing eye may give the employer a writing exonerating him from liability for the loss of the blind eye, damaged perhaps years ago, but this cannot be legally accomplished, so tightly have the framers of the law constructed their senseless, unjust and unfortunate enactment. It is not only unjust to the employer, but it is also unjust to the man seeking work, for who wants to employ a one-eyed man if he assumes a two-eyed responsibility? Thus many men are debarred from desirable occupation because unjust responsibilities are forced upon employers. It is well known that a man with only one eye is not so safe from accidents as a man with two eyes. He is more liable to be injured by collisions, flying objects, etc., on his blind side, and cannot obtain as good and comprehensive vision as a man possessed of two good eyes. Employers, you may be sure, realize the situation and know that they are taking chances when they employ a man with only one good eye and, when they also must assume responsibility over an eye perhaps damaged years ago, they are not at all desirous of giving work to a man thus handicapped.

The subject of traumatic cataract is one of great interest and importance in the adjustment of personal injury cases. Let us suppose, for instance, that a man gets a piece of steel in his eye that is removed by a magnet, leaving him with an eye blinded from cataract. Let us further imagine that the irritation and inflammation have all subsided but that the cataract remains and that the indications are that a removal of the cataract would result in the restoration of vision. The surgeon now asks the corporation whether he shall remove the cataract and perhaps restore vision or whether he shall cease his attendance and leave the case at this

junction. The corporation will naturally ask as to the probability of a successful result following the operation? This question cannot be positively answered, especially when it is remembered that intra-ocular steel invasions are apt to be followed by serious intra-ocular pathological changes, even in eyes that seem, for a time, to be doing well after the steel has been removed. Nevertheless there is frequently a good fighting chance for vision if the cataract is removed. Let us suppose that the employer decides to allow the surgeon to remove the cataract and that after this has been accomplished the vision is 10/200 without a glass and 20/20 with a glass; in other words, the result is perfect. In spite of this, however, the patient will probably not wear the glass, provided his other eye is good, because the discrepancy between the two eyes and the two glasses is so great that he is much more comfortable not to wear his cataract glass at all. He will merely realize that he has an eye upon which he can fall back in case of disease or accident occurring to the other eye. This is like laying up money in the savings bank for use upon "rainy days"—of no use *now*, but a safeguard for the future. So that while it is doubtless a satisfaction to the surgeon to know that he has restored vision and a satisfaction to the patient to know that he *has* good vision and also a satisfaction to the employer to realize that he has been the financial motive behind the good result, after all where does it benefit the employer in the settlement of the case except through the consciousness of having performed a meritorious act? He has expended several hundred dollars that will serve him no useful purpose in the final adjustment of the claim; the reason being that industrial commissions, as a rule, insist upon estimating vision in such cases *without* glasses instead of *with* glasses, the argument being that the accident has destroyed industrial vision unless glasses are worn and that they have no authority to order the wearing of glasses in estimating visual losses. I have no desire to argue the justice or injustice of this claim. I am willing to admit that there are two sides to the question and I have no desire to impose any hardship or injustice on the laboring man; in fact, my sympathies are distinctly *with* a man who leaves his home in the morning safe and sound and who by night be-

comes maimed for life. I repeat that my sympathies are *with* him so long as his claims are truthful and honest and just and my experience with employers and accident companies is such that I am confident that in almost all instances they entertain the same sympathies and intend to act accordingly. It is this very sympathy with the injured man that makes me feel that the policy of ignoring the results of successful cataract operations in making settlements is a hardship to the injured man himself, who insists that claims for injury must be settled on a financial basis. There is no room in his scheme for sympathy for the employer or for the extension of benefits to him. He wants his money and he wants all he can get. Then why should the employer spend hundreds of dollars for cataract operations, attendance, hospital bills, etc., when no allowance will be made to him in the final settlement for vision obtained. He might as well, or even better (financially), order the cessation of surgical attendance after the steel has been removed and the eye has become quiet. He will have to pay for the total loss of the eye, anyway, even if the cataract is removed and vision is restored to normal. Why then should he incur an extra expense of several hundred dollars for which the industrial commission will not give him credit? Inasmuch as these cases are to be settled on a financial basis, why should not the employer protect himself financially and allow the injured man to have his cataract removed if he desires and pay for it himself? The alternative would be for industrial commissions, legislatures, etc., to allow an employer some reasonable financial consideration if he undertakes the expense of a cataract operation. My experience with employers and accident companies is such that I know that almost all of them are not only willing but anxious to do all they possibly can for injured men when they are responsible for injuries and often do more than the law requires but when it comes to spending several hundreds of dollars and getting absolutely no credit for it, they cannot be blamed if they positively refuse to submit to such injustice. My contention is, therefore, that in case an employee has a traumatic cataract and his employer pays to have it removed, the employee's vision should be estimated *with* glasses and that a reasonable financial concession should be made the employer for assuming

the expense and responsibility of operative procedures.*

Another point I wish to make is to urge employers and employees to insist upon eye and ear examinations before employment is given. This is only justice to the employer for, if he is to pay for eye and ear damages after injury in occupation, he should certainly be allowed the privilege of accurate knowledge concerning ocular and aural conditions before an employee is placed to work. I am well aware that some labor agitators resent such preliminary examinations, and it is certain that such objections can have but one motive and that a sinister one; viz., to prevent a knowledge of old physical defects in order to increase the financial liability of employers in case of accidental injury. A subterfuge of this character is not honest and is unworthy of any straightforward organization and should not be countenanced. It must be the experience of all surgeons doing any amount of industrial surgery that many employees endeavor to represent that old pathological eye and ear conditions have never existed until some recent accident has occurred. They then claim that an old necrotic discharging putrid ear or perhaps a senile cataract is the result of some recent accident of greater or lesser degree of severity. Personally I frequently see several such cases in my office in one day and it can be readily understood that deliberate efforts of this nature to deceive and obtain money under false pretenses almost shatters one's faith in human nature and in the existence of common honesty. Employers should, therefore, be allowed to and should insist upon the careful physical examination of all applicants for work before employment is given. This is not only ordinary justice, but it will save thousands of dollars that would otherwise be paid in the liquidation of dishonest claims. There is no adequate honest reason why such preliminary examinations should not be made and I trust that before long this idea will be universally adopted. Such examinations would likewise be of enormous benefit to employees for it would disclose the existence of perhaps unsuspected diseases that could be benefited or cured and

would call the attention of employees to *known* diseases that could also be relieved by proper medical or surgical advice. The disclosing of diseases or defects would also exert a strong influence in enabling employers to assign to employees occupations harmonious with their physical condition, such as the improving of lighting conditions for workers with poor vision, the forbidding of work on emery wheels when one eye is very defective, keeping men away from dusty places who have sore or irritable eyes, etc. It will thus be seen that these preliminary examinations, while beneficial to the employers, is also beneficial to the employee and as there can be no valid objections to them and as they are needed by both employer and employee, they should be adopted without further controversy.

One obstacle to the just and intelligent settlement of visual losses has been and for that matter is the absurd but, it must be confessed, natural interpretation of Snellen's Test Types in estimating defective vision. Doctors, and I regret to say Eye Doctors, have in the past, with the best intentions in the world, endorsed the improper, misleading and literal readings of Snellen's types for compensation purposes. For instance, they have testified that 20/40 indicated a half loss of vision or that 20/50 indicated 3/5 loss of vision. Some medical men, even at the present day, obstinately persist in such opinions when testifying as expert witnesses, although most ophthalmologists have come to recognize that it is absurd to say that a man's eyesight is half gone when his vision is 20/40, according to Snellen's types. Professor Snellen never intended to have his types and fractions used to indicate visual losses. They were devised merely as an international language to indicate visual conditions, chiefly as relating to refraction work. These views being correct, and it may be safely assumed that they are, it remains for us as ophthalmologists to correct the erroneous views of the past and to guide industrial commissions, courts, lawyers, etc., to a rational and correct view of the situation. People of these classes fall back on the old and proverbial "quarrellings amongst doctors" to justify themselves in not abandoning the discarded opinion that 20/40 means a 1/2 visual loss, etc. In truth, it must be confessed, they occupy a defensible position for in the first place *all* ophthalmologists have not espoused the new views and not yet have oph-

*In a decision of the Illinois Supreme Court that affirmed an award of the Illinois Industrial Commission and the Circuit Court in the case of Juergens Bros. Co. (Plaintiff in error) vs. The Industrial Commission et al. (Fred Kaage, Defendant in Error) published in volume 290, page 420 Illinois C. S. Reports. A decision was rendered in the kind of case just referred to under which the employer was obligated to pay for the complete loss of the use of the eye.

thalmologists in general adopted any new scale for estimating visual losses. So the opposition says "How can you expect *us* to participate in your 'New Thought' when you yourselves are still fighting? Get together, bring us something that is generally adopted and we will 'join the procession.' Until this occurs, however, we propose to do as we think best, or rather as *you* have taught us in the past." This is about what they think and, indeed, what they say and who, forsooth, can blame them? Let us then "get together," let us bury our own personal opinions and adopt some plan, some method, some scale that we can unitedly present as being to all intents and purposes a safe equitable and reasonably accurate plan to serve as a basis for the settlement of visual losses. It is, of course understood that no cold table or scale can possibly entirely settle claims fairly or equitably; there are too many conditions to be taken into consideration. A person may have a vision of 20/40, 20/50, 20/30, or what not and yet have an advancing optic atrophy or choroiditis or detachment of the retina or a cataract, etc., any of which must be taken into consideration in awarding damages. These are conditions which must be solved by the expert medical witness and the time will never come when his services can be dispensed with. A table for compensation is only valuable, therefore, as it provides a basis or foundation upon which to work and as voicing the opinion of the profession of the relationship of compensation to the varying degrees of visual losses. Anyone who regards a compensation scale or table as an unbending, inelastic measure of settlement entirely misunderstands and misconceives the object of a table.

In order to construct a table certain initial points must be settled.

First—20/20 must be admitted to constitute normal vision.

Second—Some standard must be arbitrarily settled as constituting *industrial* blindness. This is a mere matter of opinion. There is no law by which it can be settled. Personally, I believe that when a man's vision is worse than 20/200, he is industrially blind—not *actually* blind, but *industrially* blind; that is, unable to earn his living through ordinary means *by his eyes*, each eye being considered as an entity by itself. The question of shifting occupations will, of course, frequently present itself; that is, the

necessity of changing vocations on account of visual deficiency, as for instance from being a watchmaker on a high salary to a day laborer on a low salary. This is a problem that cannot be solved by a scale or a rule; it must be settled by expert evidence and by a judicial and equitable survey of the entire situation. Having, therefore, settled that 20/20 constitutes normal vision and that vision *worse* than 20/200 constitutes industrial blindness, it simply becomes necessary to graduate in percentages the varying losses of vision between the two extremes in order to frame a compensation table. The amount of damages to be awarded is something that we as table constructors have nothing to do with—it is taken out of our hands and is settled by the state. For instance, the Illinois law awards an applicant 100 weeks of compensation for 100 per cent of visual loss of one eye with the following modifications. The Illinois law holds that the total loss of one eye entitles an applicant to 100 weeks of compensation with \$12.00 a week as the maximum to be paid, the minimum being \$7.00 a week. In case the maximum is paid, the amount is increased \$1.00 a week for each child under 16 years of age up to and including three children. In case the minimum is to be paid, the amount is increased \$1.00 a week for each child under 16 years of age up to and including three children. Of course, no one thinks for a moment that an amount varying from \$700 to \$1,500 compensates a man for the loss of his eye, but it must be remembered that this compensation is being paid by the employer and not by the injured man himself and a more liberal policy in general would be ruinous to almost any business. Each man can take out all the accident insurance he wants to or can pay for, but as long as his employer is paying all the damages including doctor's bills, hospital charges, etc., the injured man should be satisfied with reasonable returns.

The only thing to be done now in constructing a compensation table for monocular visual losses is to arrange a mathematically correct graduated scale of visual loss percentages between the two extremes of the table, or, to be more specific, between normal vision and industrial blindness. This has been attempted by various observers but the one most favorably considered was adopted by the Chicago Ophthalmological Society at a meeting held November 10, 1919. This

is a very fair and reasonably accurate table, but unfortunately it presents certain mathematical discrepancies that will always render it open to criticism. These have been pointed out by Professor G. A. Bliss of the mathematical department of the University of Chicago and others.

I here submit

THE CHICAGO OPHTHALMOLOGICAL SOCIETY TABLE

20/20 indicates 100% of visual efficiency and no loss of vision.
20/30 indicates 94.5% of visual efficiency and 5.5% loss of vision.
20/40 indicates 89.0% of visual efficiency and 11.0% loss of vision.
20/50 indicates 83.5% of visual efficiency and 16.5% loss of vision.
20/60 indicates 78.0% of visual efficiency and 22.0% loss of vision.
20/70 indicates 72.5% of visual efficiency and 27.5% loss of vision.
20/80 indicates 67.0% of visual efficiency and 33.0% loss of vision.
20/90 indicates 61.5% of visual efficiency and 38.5% loss of vision.
20/100 indicates 56.0% of visual efficiency and 44.0% loss of vision.
20/110 indicates 50.0% of visual efficiency and 50.0% loss of vision.
20/120 indicates 41.0% of visual efficiency and 59.0% loss of vision.
20/130 indicates 36.5% of visual efficiency and 63.5% loss of vision.
20/140 indicates 32.0% of visual efficiency and 68.0% loss of vision.
20/150 indicates 28.5% of visual efficiency and 71.5% loss of vision.
20/160 indicates 23.0% of visual efficiency and 77.0% loss of vision.
20/170 indicates 18.5% of visual efficiency and 81.5% loss of vision.
20/180 indicates 14.0% of visual efficiency and 86.0% loss of vision.
20/190 indicates 12.0% of visual efficiency and 88.0% loss of vision.
20/200 indicates 10.0% of visual efficiency and 90.0% loss of vision.

It will be noticed that the changes in percentages from line to line are not uniform and, therefore, incorrect and criticisable. For instance, in the last line it says that 20/200 indicates 10 per cent. of visual efficiency. The line above says that 20/190 indicates 12 per cent of visual efficiency. The line above says that 20/180 indicates 14 per cent of visual efficiency. So far the differences in percentages are uniform; that is, there is 2 per cent between each line. But the next line says 20/170 indicates 18.5 per cent of visual efficiency, thus separating the two lines by 4.5 per cent instead of 2 per cent. The next line is also separated by a difference of 4.5 per cent for it says that 20/160 indicates 23 per cent of visual efficiency. But the next line is even worse, for it says that 20/150 indicates 28.5 per cent of visual efficiency, a difference of 5.5 per cent, and so on. Other discrepancies will be found on carefully analysing the table. This table is meritorious and essentially correct and equitable. The compensation from its readings are about the same as other tables, but these discrepancies in percentages

render it open to criticism and progress toward its general adoption is thereby considerably deterred. I know this is true from personal experience, as I will relate. The industrial commission of a neighboring state called me to testify in a certain case, but the real object was to have the Chicago Ophthalmological Society table explained to them. They were favorably inclined to it, and really *wanted* to adopt it, as may be seen from the fact that they paid me \$500.00 for the trip. Notwithstanding this, however, they refused to adopt it on account of the percentage discrepancies, believing that a more accurate mathematical table would soon be presented to which they could subscribe. I have, therefore, conferred with Professor Bliss of the University, Dr. J. D. Whitaker of Indianapolis, Dr. W. N. Sharp of Indianapolis, and Dr. V. A. Chapman of Milwaukee, and we have concluded that the essential features of the Chapman table are the most perfect of any table before the profession. To all intents and purposes it works out about the same amount of compensation as the Chicago Ophthalmological Society table; in fact, most of the tables do this. The only real advantage of the Chapman table is that it is more accurate mathematically and is free from discrepancies, thus rendering it impervious to just criticism and therefore more likely to be generally adopted.

I herewith submit the Chapman table and leave it to the profession to make what use they please of it. I have changed the table somewhat in order to clarify it, but the table as here appended is essentially the Chapman table. I have "cut out" Chapman's mention of 20/15 of vision as being unessential and confusing and start out with 20/20 or normal vision. I also maintain that while the last two items, viz., 20/210 and 20/220 are desirable as completing the table, they are unessential from a compensation point of view, for in the judgment of most fair-minded men anything *less* than 20/200 constitutes "*Industrial Blindness*."

20/20 indicates 100% of visual efficiency and no loss of vision.
1. 20/30 indicates 95% of visual efficiency and 5% loss of vision.
2. 20/40 indicates 90% of visual efficiency and 10% loss of vision.
3. 20/50 indicates 85% of visual efficiency and 15% loss of vision.
4. 20/60 indicates 80% of visual efficiency and 20% loss of vision.
5. 20/70 indicates 75% of visual efficiency and 25% loss of vision.
6. 20/80 indicates 70% of visual efficiency and 30% loss of vision.

7. 20/90 indicates 65% of visual efficiency and 35% loss of vision.
 8. 20/100 indicates 60% of visual efficiency and 40% loss of vision.
 9. 20/110 indicates 55% of visual efficiency and 45% loss of vision.
 10. 20/120 indicates 50% of visual efficiency and 50% loss of vision.
 11. 20/130 indicates 45% of visual efficiency and 55% loss of vision.
 12. 20/140 indicates 40% of visual efficiency and 60% loss of vision.
 13. 20/150 indicates 35% of visual efficiency and 65% loss of vision.
 14. 20/160 indicates 30% of visual efficiency and 70% loss of vision.
 15. 20/170 indicates 25% of visual efficiency and 75% loss of vision.
 16. 20/180 indicates 20% of visual efficiency and 80% loss of vision.
 17. 20/190 indicates 15% of visual efficiency and 85% loss of vision.
 18. 20/200 indicates 10% of visual efficiency and 90% loss of vision.
 19. 20/210 indicates 5% of visual efficiency and 95% loss of vision.
 20. 20/220 indicates 0% of visual efficiency and 100% loss of vision.
- Less than 20/200 indicates industrial blindness.

In conclusion, I desire to say that if it is the intention of ophthalmological organizations to establish scales, tables or rules for the purpose of awarding compensations to the injured, that shall, *perhaps*, be valuable from an academic standpoint, and comprehensive to educated ophthalmologists, and satisfactory as scientific productions, let them go on formulating abstruse, incomprehensible, impractical resolutions, that will doubtless be satisfactory to themselves, and to the highly scientific organizations before which such papers are read. *But*, if they desire to produce something that shall reach the purpose at which such papers are aimed, and receive the endorsement of business men, lawyers, courts, etc., they will have to get down to the medically uneducated level of such men, and give them something they can clearly and instantly understand without study. Nothing else will do, and nothing else will be accepted as a working basis for litigation.

It must be remembered that eye injury cases are not tried before educated ophthalmologists, they are tried before medically uneducated industrial commissioners, judges, lawyers and juries. *They* are the people to be reached, and satisfied, and we must "cut our garment according to our cloth." Questions of an abstruse nature must be settled by the expert witness on the witness stand. They cannot, and never will be, settled by scales, tables or resolutions. Writers and committee men, endeavoring to settle this vexed problem, often make the mistake of thinking that because their literary productions are plain to *them*, they *must* be plain to everybody. Many of them, however, are not plain even to

me and perhaps other ophthalmologists. How, then, can they expect them to be understood and adopted by laymen.

7 West Madison Street.

THE ETIOLOGY OF PUERPERAL ECLAMPSIA

Barton Cook Hirst maintains (*New York Med. Journal*, Oct. 5, 1921) that the origin of the toxins of eclampsia is mainly in the fetal body; to a less degree in the placenta. Every living cell must get rid of some of the products of its life activity or it perishes. The vast aggregation of cells in the fetal body has no way of eliminating these products except by emptying them into the maternal blood. The fetus lacks perspiration, respiration, defecation and urination. The placental cells also must get rid of their waste products. These also are thrown into the maternal blood. The process of conversion into excretable substances begins in the placenta, but only to a moderate extent: the process is continued by the maternal liver and probably to a less but an important extent by the endocrine system. Finally all the excretory organs of the body eliminate the substances thus reduced to excretable form, the principal role being played by the kidneys, but the lungs, the skin and the bowels play their part. The adult body has enough to do to take care of the incineration, oxidation, and elimination of the products of its life processes; when the waste products of the fetus and the placenta must also be taken care of, it is no wonder that over-burdened organs break down—which is all the more likely if a heavy proteid diet, an inactive skin, and sluggish bowels increase the work they have to do.

Hence the success in avoiding toxemia by a diet light in proteids, by preserving normal skin action, by regulating the bowels and stimulating the liver at stated intervals of about every four weeks by a mild course of calomel and soda followed by a light saline laxative.

THE TREATMENT OF PSORIASIS BY X-RAY STIMULATION OF THE THYMUS

On the hypothesis that psoriasis is due to lack of functional activity of the thymus, Brock undertook the stimulation of this gland by X-rays, carefully shielding the thyroid and parathyroids and using very weak doses. Aside from the mistakes made by using too strong doses, the author (*Strahlentherapie*, Sept. 15, 1920) claims that the results were remarkably good. In hyperactivity of the thymus, in status thymicus, psoriasis never occurs. In pregnancy and during lactation, psoriasis is apt to occur, which heals as soon as this over-activity of the reproductive organs ceases and the thymus is no longer antagonized. Psoriasis is also apt to occur at puberty, when this reproductive antagonism is again pronounced. Brock is confident that psoriasis develops because there is not enough stimuli from the thymus. If the thymus is stimulated by mild doses of X-rays, the psoriasis is cured. If it is paralyzed by too large doses of X-rays, the psoriasis becomes worse.

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APRIL, 1922

Editorial

NEW YORK TURNS DOWN SHEPPARD-TOWNER BILL.

The Sheppard-Towner bill has been turned down hard by both Massachusetts and New York. George Pearl Webster, Esq., chairman House Committee on Social Welfare of the Massachusetts legislature, made this statement:

"We intended turning the Sheppard-Towner bill down hard. Had we waited for a report from the Attorney General we would have lost the opportunity."

The joint committees were not five minutes after the hearing had closed in voting "No Legislation Necessary." The Senate and House have accepted this report.

Mr. Webster added: "Regulation of state affairs by Federal law in visionary procedure must stop."

New York has acted with equal decisiveness as the following letter to the Civic Alliance from Charles J. Hewitt, Esq., chairman of the Senate Committee on Finance shows:

March 17, 1922. The Senate of the State of New York, Albany.

"I am pleased to advise that our committee

declined to report the bill (Sheppard-Towner maternity bill) out and no action was taken on the floor of the Senate.

"I believe our legislature is almost unanimously opposed to it, and there seems to be a general feeling that we should decline to accept it."

The bill to which Senator Hewitt refers was "relative to accepting the appropriations made by the Federal Government by the Sheppard-Towner Act."

MASSACHUSETTS CIVIC ALLIANCE.

MASSACHUSETTS REFUSES TO CO-OPERATE WITH SHEPPARD-TOWNER BILL

Somerville, Mass., March 8th.

To the Editor: The Public Health and Social Welfare Committee of the Massachusetts Legislature sitting jointly, after long hearing, voted unanimously today to report adversely on accepting the Sheppard-Towner Bill Law. First battle won. What will Illinois do?

CHAS. E. MONGAN, M. D.

And this from the Massachusetts Civic Alliance, 50 Bronkfield street, Boston:

Boston, March 15, 1922.

To the Editor: You may have heard from Dr. Mongan of the action of our legislative

committees on public health and social welfare sitting jointly, after hearing, in unanimously rejecting the Sheppard-Towner bill. Since then the Senate has accepted said report almost unanimously. This is the first instance of Federal aid being refused. It will not be the last, for with such stalwart fighters as you and Dr. Hunniston, Dr. W. D. Chapman and Mr. Douglas Sutherland, also Dr. H. J. Achard, and the Illinois State and Chicago Medical Societies, Illinois is expected also to reject the Federal hand-out of your own money.

Cordially yours,

EBEN W. BURNSTEAD,

Secretary.

NOTE—It is interesting to note that at the hearing on this bill before the Massachusetts Legislature, Dr. Kelly, the State Commissioner of Health, and the other members of the payroll brigade were clamoring to have the Legislature make an additional appropriation of about \$15,000.00 and secure from the Federal government an infinitesimal part of the money they pay directly into the national treasury. It is also of interest to know that the chief opposition to this scheme was Dr. Charles E. Mongan of Somerville, Massachusetts. We congratulate Dr. Mongan on his ability to convince the members of the Massachusetts Legislature that the tax eaters as represented by the gentleman first named are not working in the interest of the people but are interested purely in building up a bureaucratic form of government in Massachusetts.

Relative to the question "What Will Illinois Do?" we understand that the State Department of Health is now laying plans to avail themselves of this money. This means a fight to a finish with the medical profession of this State together with the Civic Federation of Chicago and Association of Commerce and other civic organizations throughout Illinois, all of which organizations are determined to head off at once further encroachment by the national government on the functions that should be performed by the state or the individual.

ILLINOIS STATE MEDICAL SOCIETY PRELIMINARY PROGRAM

SEVENTY-SECOND ANNUAL MEETING

Chicago, May 16, 17, 18, 1922

SECTION ON SURGERY

1. Cesarean Section Under Local Anesthesia—Edmund C. Roos, Decatur.
Discussion—Robert E. Farr, Minneapolis; Frederick Dyas, Chicago; Edwin P. Sloan, Bloomington.
2. Splitting the Cord in Herniotomies (indirect inguinal)—C. B. Ripley, Galesburg.
3. Surgery of the Lung—Clifford U. Collins, Peoria.
4. Diagnosis and Treatment of Gastric Ulcer and Pathological Gall Bladder—Don Deal, Springfield.
5. Ectopic Pregnancy—Andy Hall, Mt. Vernon.
6. Choriocarcinoma of the Ovary—John B. Moore, Benton.
7. A Further Consideration of Morbidity Incident to Umbilical Drag—L. J. Wiggins, East St. Louis.
8. Local Anesthesia in Surgery of the Upper Abdomen—R. E. Parr, Minneapolis, Minn.
9. The Management of Acute Cranial Injury—Harry Jackson, Chicago.
10. Para-vertebral Anesthesia in Abdominal Surgery (illustrated)—Nelson H. Lowry, Chicago.
Discussion—Hugh MacKechnie and John R. Harger. (24 slides.)
11. Some Fractures in and Near Joints and Demonstration of the Author's Fracture Table in the Management of Some of These Conditions. (Lantern slide demonstration.)—Hugh McKenna, Chicago.
Discussion—Kellogg Speed and E. W. Ryerson.
12. Empyema—James T. Gregory, Chicago.
13. Nephrolithiasis Complicating Pregnancy—Aime Paul Heineck, Chicago.
14. A New Operation for Femoral Hernia—Edmund Andrews, Chicago.
15. Injuries to the Knee Joint or Derangements of the Knee Due to Trauma—Maurice A. Bernstein, Chicago.
Discussion—B. F. Lausbury and E. W. Ryerson.

16. Radium and Diathermy in the Treatment of Malignant Growths or Radium in Malignant Glands—C. W. Hanford, Chicago.

SECTION ON MEDICINE

1. The Open Air School as a Factor in Preventive Medicine—Josephine Milligan, Jacksonville.

Discussion—Inas Rice, Aurora.

2. Six Years' Experience With the Use of Roentgen Ray Treatment of Fibroids and the Menopause—A. G. Patton, Monmouth.
3. Thymus Enlargements—C. E. Barbour, Peoria, and Lowell S. Goin, Peoria.

Discussion—F. S. O'Hara, Springfield.

4. Syphilis of the Lungs—A. Egdahl, Rockford.

Discussion—Manly Shipley, Rockford.

5. Cerebral Hemorrhage in the Newborn; Surgical Treatment—A. L. Shreffler, Joliet.
6. The Vitamines—Chas. B. Johnson, Champaign.
7. Case Report of Syphilis of the Esophagus—J. C. Redington, Galesburg.
8. The Symptomatology of Chronic Fatigue Intoxication—Edward H. Ochsner, Chicago.

Discussion—C. W. Lillie, East St. Louis, and Alfred C. Crofton, Chicago.

9. The Recognition and Management of Different Types of Auricular Fibrillation—W. W. Hamburger, Chicago.
10. The Value of Pyelography Before Undertaking Surgical Measures for the Relief of the More Obscure Types of Abdominal Pain—Vincent J. O'Connor, Chicago.

Discussion—Harry Culver, Chicago.

11. Clinical Observations on Infantile Eczema—Jesse R. Gerstley, Chicago.

Discussion—Clifford G. Grulee, Chicago.

12. Hypo-Thyroidism—James H. Hutton, Chicago.

Discussion—Charles L. Mix, Chicago.

13. X-ray Treatment of Thyrotoxicosis—I. S. Trostler, Chicago.

Discussion—Harold Swanberg, Quincy, and H. A. Chapin, Jacksonville.

EYE, EAR, NOSE AND THROAT SECTION

1. Glaucoma Surgery—Michael Goldenberg, Chicago.
2. A Plea for Conservatism in the Treatment

of Maxillary Infections—Carroll B. Welton, Peoria.

3. Benign Tumors of the Larynx—John A. Cavanaugh, Chicago.
4. The Training of Specialists in Ophthalmology—William H. Wilder, Chicago.
5. The Relation of the Nose and Throat to Ear Diseases—George E. Shambaugh, Chicago.
6. Some Relations of the Nose to the Eye and Ear—B. F. Andrews, Chicago.
7. Bilateral Blood-Staining of the Cornea—Harry S. Gradle, Chicago.
8. Report of a Case of Paget's Disease Involving the Orbits, Ears and Mouth—George W. Boot, Chicago.
9. Hydrophthalmos—Report of a Case Treated by the Trephining Operation—H. W. Woodruff, Joliet.
10. Tuberculin as a Therapeutic Agent in Certain Types of Keratitis—William G. Reeder, Chicago.
11. Tubercular Ophthalmia With the Tonsil as a Focus of Infection—C. M. Jack, Decatur.
12. Some Points of Technique in Intra-Nasal Tear-Sac Operation—J. Sheldon Clark, Freeport.
13. Adenoids in Infants With Report of Cases—George S. Duntley, Bushnell.
14. Status Lymphaticus—R. J. Tivnen, Chicago.
15. Iritis—W. H. Peck, Chicago.

Monday and Tuesday, May 15 and 16, forenoon, post-graduate instruction in ear, nose and throat. Afternoons, clinics in the various hospitals. Banquet Tuesday evening.

*Wednesday, scientific program all day.

Thursday and Friday, forenoon, post-graduate instruction in the eye. Afternoon, clinics in the various hospitals.

Banquet, post-graduate work, and scientific program at the Congress Hotel, Chicago. All eye, ear, nose and throat workers are invited to attend the post-graduate lectures.

PUBLIC HEALTH AND HYGIENE

- 1.—The Physician an Important Factor in Public Health Problems in Illinois—Isaac Rawlings, Director of Department of Health, State of Illinois.

*Will adjourn for President's address.—W. H. G.

2. Public Water Supplies and Public Health in Illinois—Mr. Harry F. Ferguson.
3. Tuberculosis in Childhood—Clara Jacobson, Chicago.
4. The Advantages and Disadvantages in Our Modern Method of Treating Syphilis—Edward A. Oliver, Chicago.
5. Cancer—William M. Harsha, Chicago.
6. The Management of Infantile Congenital Club-foot—Henry Bascom Thomas, Chicago.

SECRETARIES' CONFERENCE

For the meeting of the Secretaries' Conference to be held at Chicago in May an interesting Program has been prepared.

The subjects for discussion are:

"How can the Society be Improved in Discussion?"

"The Value of the Member, Socially and Scientifically as Viewed by the County Secretary."

"How Can the Society Be Improved in General Interest?"

"How Can the Society Be Improved in Attendance?"

T. D. DOAN,
Secretary.

ST. LOUIS SESSION

SPECIAL RAILROAD FARES

The Southwestern Passenger Association announces that there will be available for members of the American Medical Association who go to St. Louis for the Annual Session a special rate of one and one-half fares for the round trip, going and returning the same route. To secure this rate, purchasers are required to present an identification certificate. These certificates will be available within a short time. One certificate will enable the member to purchase tickets for himself and for dependent members of his family. Tickets will be sold on the presentation of these certificates from May 16 to 24 inclusive. They must be validated at St. Louis during the days of the session, and the return trip must be completed by June 1, 1922. The minimum excursion fare on presentation of this identification certificate is \$1. Members and Fellows may secure these certificates by writing the secretary of the Association, Dr. Alexander R. Craig, 535 North Dearborn Street, enclosing a self-addressed, stamped envelop.

The Central Passenger Association, the Trunk Line Association, the Southeastern Passenger Association and the Western Passenger Association have also authorized similar special fare tickets from points in their territories.

MAKE HOTEL RESERVATIONS EARLY

PATRONIZE THOSE THAT PATRONIZE YOU

Illinois State Medical Society will meet in Chicago, May 16, 17 and 18, 1922.

The headquarters for the meeting will be the Congress Hotel, Michigan Avenue and Congress Street.

All the sessions will be housed under one roof.

The Congress is one of the largest and most popular hotels in the West. It is sufficiently commodious to accommodate all the visiting doctors.

The Congress has made the State Society a very alluring proposition as an inducement to hold the State Convention at this hotel. It is therefore only just and honorable that the members of the State Society reciprocate to the extent of making the Congress Hotel their headquarters while attending the State meeting.

The officers of the State Society respectfully request that alumni meetings, dinners, banquets, luncheons, etc., be held at the Congress as a token of appreciation of the concessions made the Society by the Hotel Congress officials.

We respectfully suggest that members of the State Society and others who contemplate attending the convention in May make reservations early and that the reservations be made directly with the Hotel management.

The local Committee of arrangements is Dr. Frank R. Morton, 25 E. Washington St., Chairman. Dr. Thos. P. Foley, 25 E. Washington St., Secretary.

EX-GOVERNOR LOWDEN RAPS BUREAUCRACY.

Ex-Governor Frank O. Lowden, of Illinois, speaking February 15th at Galesburg at the 85th Founders' Day Celebration of Knox College, assailed the bureaucratic system by which he said the Federal Government is encroaching on the power of the states and the rights of the individual. He said that property is essential that this system must hold if civilization is to go on.

Would that we had more clear thinking men like Governor Lowden in public life; if we had we would not be troubled with Sheppard-Towner bills and similar bolshevik legislation.

YOUR AMERICAN MEDICAL ASSOCIATION.

IMPRESSIONS GAINED AT THE MEETING OF THE NORTH SIDE BRANCH, CHICAGO MEDICAL SOCIETY.

To the Editor:—Long experience as a newspaper man, and subsequent study of the problems of medical and civic economics lead me to take the liberty of sending you a few impressions gained from the meeting on February 2, 1922, of the North Side Branch of the Chicago Medical Society, and of which session a report appears in the March, 1922, issue of the ILLINOIS MEDICAL JOURNAL.

1. A. M. A. TRUSTEES seem finally to have discovered the general practitioner. *This is following the trail of the Illinois State Medical Society which has kept the general practitioner always in mind and for years has fought diligently the battles of the bedside doctor.*

2. A. M. A. TRUSTEES appear to have been smitten with the revelation that the President of the Illinois State Medical Society has been vested with the "divine right of kings and can do no wrong" and must receive all precedence. *It is of pleasant remembrance where that meeting is concerned that the A. M. A. Trustees proffered all honor to the president of the Illinois State Medical Society and were the more than courteous guests of the occasion. In fact the president of the Illinois society was told that one at least of the trustees "agreed with every word the President of the Illinois State Medical Society has said."* The ideals of the Illinois State Medical Society were applauded. Where Illinois was concerned the visiting medical motto of the evening was "Say It With Flowers."

Yet only about a year and a half ago at the secretaries' conference this same A. M. A. trustee went out of his way to speak derogatorily of the Illinois State Medical Society and its officers, and what this same society and its officers stand for, fight for, hope for, now as well as in years past. In this interim the president of the Illinois State Medical Society and the society itself have not altered their ideal. WHY, THEN, THIS CHANGE OF HEART ON THE PART OF A. M. A. TRUSTEES?

DEMOCRACY IN MEDICINE *has been and continues to be the slogan of the Illinois State Medical Society and its officers.* Its president

was standing for democracy in medicine at the same time that one of these same trustees a year or so ago, in his persistent advocacy of the very antithesis of democracy in medicine—the socialization of medicine—simultaneously boosted compulsory health insurance, abused the Illinois State Medical Society, and threatened a practicing physician in New York to the effect that if this physician introduced an anti-compulsory health insurance motion into the House of Delegates of the New York State Medical Society that he would fight it to a finish. *Yet now, this trustee agrees with the Illinois State Medical Society in its ban upon those very things, and compliments it upon its ideals, calling it THE GREAT MEDICAL ORGANIZATION OF ILLINOIS.*

It is to wonder what has brought about this change of heart. Was it because in the month of March one expects the lion and the lamb to share the calendar? Other instances of the shift of position of the A. M. A. Trustees may be found in their spoken obeisance on that evening to the will of the Illinois State Medical Society in the face of various previous and antipodal exemplars such as:

(a) The action of an A. M. A. trustee on December 17, 1921, in his appearance before the Douglas County Medical Society at Omaha, Nebraska, when he urged an Enabling Act in every state to enable municipalities to erect, equip and maintain and control hospitals. Such an act would mean, of course, that hospitals so instituted would be politically appointed, dominated and controlled—STATE MEDICINE TO THE ULTIMATE DEGREE.

How contrary to the talk on February 2, 1922, before the North Side Branch of the Chicago Medical Society.

(b) A talk before the North Side Branch of this same society in December, 1920, advocating health centers.

3. A. M. A. Trustees admitted that the A. M. A. had "failed to deliver," where the best interests of the rank and file are concerned. For this defection apologies and explanations were in order. The apologies were faint, with a weakness almost puerile. The explanations involved official limitations. Denials of accusations were conspicuous by their absence. Intimations were patent that though evils existed in the scope, the executions and the management of the associa-

tion that these malevolences were being cared for through organization channels.

4. *A. M. A. Trustees in addition to discovering the general practitioner* show signs of having discovered also, and to be about to lead into captivity, a general scapegoat. This purblind animal of endless malfeasances if the A. M. A. Trustees are rightly comprehended, is none other than the House of Delegates of the A. M. A. Heaven have mercy on the House of Delegates, if this be so, for be it as black as it has been through the graceful statements of the Trustees of the A. M. A., sins of commission, sins of omission, sins of desire, sins of intent, sins fore, aft and amidships, all lie heavy upon the House of Delegates of the A. M. A.

Charged directly to its baneful influences would appear to be every ill afflicting the A. M. A., including:

1. The uncomfortable position in which the leaders now find themselves, for if the wicked (?) House of Delegates had not appointed these eminent gentlemen to places of power there would never have resulted the intensive, expensive campaign covering about six years of time and costing a large sum of money, that has been waged to force compulsory health insurance on the medical profession.

2. The aiding and abetting of the enemy in the shape of the American Association for Labor Legislation by the president of the A. M. A., a prominent trustee and the chairman of the council for health and public instruction; or

3. The inspiration of a trustee's speech, known to the rank and file as the "Unequivocally in Favor of Health Insurance Speech," and demanding an inquisitorial body to make physicians toe the mark; and the inspiration of another speech delivered at Omaha, Neb., in December, 1921, carrying a fervid plea for "Medicinizing Socialization."

Yet in the face of all this, records show that at New Orleans, La., the House of Delegates by an almost unanimous vote voted down the Compulsory Health Insurance Scheme. This, too, despite work on the floor of the house by the retiring president of the A. M. A., and the heroic work of the Council on "Health and Public Instruction."

Can it be that the House of Delegates is ungrateful?

It may well be that the House of Delegates, the State Councils and the County Societies are to blame for existing conditions.

Did they not put their trust in the "Medicinizers of Socialization?" In the "Cross Roads Hospitallers?" In the "Knights of the Community Hospitals?" In the "Health Centers Under University Domination?" "They who lean upon a broken reed shall find it pierce the hand." Had the rank and file placed its dependence elsewhere it would not now be fighting for the right of the medical profession to exist as an independent profession.

5. *An A. M. A. Trustee expresses surprise* that word has been fetched of "any internal trouble in the profession."

Yet in several states—notably California and Massachusetts, conditions have become so intolerable that there has been serious talk of starting another national and reputable medical organization to look after the interests of the profession which the A. M. A. is not doing now and has not done in the past, according to the daily experiences of the man with the saddlebags, and the health of the populace on his conscience.

6. *A. M. A. Trustees appeared at this meeting* to feel that where the blame for existing and admitted evils ceases to rest upon the House of Delegates the liability falls upon the shoulders of the rank and file itself. Then to the rank and file, if these trustees are again understood accurately, belongs the blame for

(a) Permitting quacks to become active members of County Medical Societies as a direct result of which perhaps might be found the employment of an I. N. Rubinow hired by the Council on Health and Public Instruction of the A. M. A. to forge on the necks of physicians the chain of Compulsory Health Insurance or any raising of the question as to what amount of money was paid Rubinow, or any necessity of painful sidestepping on this point by leaders of the A. M. A., at any of the frequent propoundings of this question.

(b) If the clearly defined duty of the Councils of the several states had not been shirked, the A. M. A. would never have had as president a man who would have dared to advocate the paying out of ONE HUNDRED THOUSAND DOLLARS of the association's money to uplift and to welfare somebody somewhere, provided

only that a multimillionaire "foundation" put up a like amount of money.

Of course it would be quite out of order for the State Councils to remark that for years their delegates had elected the leaders to do the thinking and the planning for them, whereat had they failed in their duty? State Councils lie far apart. The chances are that few will ever hear how they are charged with the betrayal of their profession.

7. *A. M. A. Trustees take it quite to heart that anybody could desecrate with a critical thought the great A. M. A. Journal. Can it be that they are like the fly on the wheel of the cart hurrying to town who insisted upon admiring "the dust that I stir up?"*

To get the right perspective upon the Journal of the A. M. A. it is necessary to seek the cause of its undisputed greatness.

Is it great because of the men who run it or because of the men who read it? Why do the advertisers pay in hundreds of thousands of dollars every month—because so-and-so is the editor, or so-and-so is the business manager or because the bedside doctors—the fighting buck privates in the army of doctors buy and read that magazine every month?

The Journal has a princely income. It has been admitted by the trustees that the income approximates a million dollars a year and that even after the necessarily large outgo is met that the net income remaining is at least \$200,000. What good does the individual practitioner get out of that \$200,000? A copy every week in return for his dues, of course. What more can he want? *It might seem to a man up a tree that the rank and file who have by their following of the Journal, built it up to what it is, would be excused if they desired to know.*

(a) Why is the Manager-Editor permitted to print volumes and to spend thousands of dollars on his pet propaganda, no matter how meritorious this apple of his eye may be, while the Sheppard-Towner bill is permitted to pass with a few columns of luke-warm comment? *The Sheppard-Towner bill, mind you, affecting the well being of every practicing physician, and the liberties of every man, woman and child in the United States. The pet propaganda may be righteous but there can be a surfeit of righteousness when vital interests are at stake.*

(b) The downtrodden practitioner might ask

in justice, "Is it true that the advertiser in the A. M. A. Journal pays large prices for space, and if so, why? For rhetorical beauty, scientific value or lucid demonstrations of the contents? Or for my eye and ear? Most assuredly for the latter. The advertiser pays because I read the Journal, because my fellow members of the County Society read the Journal. We are the foundation upon which the great Editor-Manager has built. Let us crack and crumble and watch his stately edifice fall to the ground. The rank and file has a right to be heard. It has a right to protest. It has a right to help construct the policy of the Journal—a policy that shall protect us and preserve the foundation on which our Editor-Manager and the Journal have risen. Briefly, 'I am the people.'"

You see the rule for the socialization of medicine can be made to work both ways. If the leaders of the A. M. A. will but bend their ears to the ground sentiments akin to these may be caught from the long pitifully, docile rank and file of the profession and close upon it this cry:

"We have been betrayed by our chosen leaders, who have tried to lead us into bondage. Their enre-alls for the ills of mankind which they claimed to have studied for years and to which they had given their unequivocal approval, and which they worked unceasingly to fasten on to the people of this Country, were discarded in a night, without even a word of explanation. If they were so woefully wrong in their diagnosis on Compulsory Health Insurance, what guarantee have we that they will not be equally wrong in their diagnosis today with the millenium to be ushered in if we adopt "Medicinizing Socialization"—"Community State Subsidized Health Centers"—"Community State Paid-for Hospitals Under University Domination"; and last, but not least, Dr. Royal Copeland's heroic remedy, "Banish Disease from the face of the earth by advertising." If in your youth, when your attitude was all "I'm from Missouri, show me," you gave your unequivocal endorsement to White Elephants, what may you not endorse in the age at which spirits become real and mediums are apt to have much influence?

"The rank and file want to know why you made the A. M. A. the tail of the kite of the American Association for Socializing America, camouflaged as Labor Legislation? What brought about the change in the opinions of those

who, in 1916 were on record as 'Unequivocally in Favor of Compulsory Health Insurance'—wanted a 'bill with teeth in it'? Why the gentle man from Russia—I. N. Rubinow—was paid \$10,000 of our money to Russianize us? Exactly why was he paid and why he was dismissed? Then, perhaps, judgment can be passed on present policies of the leaders.

"The rank and file wants to know why the Lambert-Rubinow propaganda was sent out at the expense of the rank and file, when an overwhelming majority of the physicians were against the scheme?

"Also, who owns the A. M. A. Journal? Is it owned by the Manager-Editor, by the Board of Trustees, or by the rank and file? Is a trustee to be permitted to go unrebuked when he characterizes a number of his constituents who have had the temerity to disagree with him as 'rogues and scoundrels'? It is a far cry from the little low log cabin on the Lake to Fifth Avenue. The man of the cabin is apt to be blinded by the glitter of the gold paved streets, and like all converts, to be over zealous in behalf of his new associates. If the trustee were right and these men are scoundrels, produce the proof and let them be tried! If it is simply a case of men having the courage to take issue with one of the henchmen of the lordly House of the Rockefeller Foundation, then bring him to the bar and let us punish the guilty party! What inroads have the various Welfare Foundations made in the National Organization? Are they in that organization as mere guests or as Over Lords?

The rank and file wants to know when leaders are going to stop railroading non-practicing physicians into every important office of the A. M. A., men who are completely out of touch with the practicing physician and his work? *Oh, yes, these nominations are as completely arranged as are the reservations at the best hotels in the convention city. Apply early and often, but the rank and file gets what is left after the friends of the administration have been served."*

These are a few things the underground radio will tell the leaders.

From many a tiny hamlet with its one God-fearing, hardworking general practitioner—that poetic country doctor, whom Rubinow characterizes as a misfit in modern civilization, is coming protest. From the great cities, with their medical groups, their specialists, and the great

hospitals, comes protest. More protest, too, from the young physician, who, after seven years of hard work finds himself facing a world in which he has been made the victim of the gigantic insurance company, the victim of his beloved Alma Mater, who has inculcated a religious belief in medical ethics, but who, far too often, forgets to practice what was preached, for he finds, does this young doctor, that his highly worked, highly paid, well-advertised professors make it almost impossible for him to get a foothold. And when he knows that out of his hard-earned pittance he, too, is to be taxed to keep his state-paid brethren in ease and luxury, is it a wonder if he is a rebel?

Those in the seats of the mighty may laugh at the protest of Silver Glen or Lone Star with their insignificant membership, but Lone Star and Silver Glen represent the rank and file. The men who have built up can tear down! The working physician is sensing the fact that the leader who is loudest in calling on the God of Medical Ethics to protect him is the one who, in the name of education is willing to do and does do the wildest, weirdest kind of advertising that was ever seen outside of a bally-hoo man with a four-ring circus.

It may not dawn today. It may not dawn tomorrow. But the day is not far distant when the working physician will come into his own and cease to be the pawn for political adventurers—medical and practical.

M. F. G.

MERCURY FOUNTAINS WITH PUBLIC NEEDLES AT EVERY CORNER AND THE TAX RATE RAISED.

LAY REGULATION OF MEDICINE

In many of the States efforts have been made to pass what are known as annual re-registration laws and other legal enactments in the attempt to place the supervision of the practice of medicine in the hands of lay people.

The medical re-registration act would place doctors on an equality with the saloon-keepers, when it came to practicing their profession. Repair garages, vegetable peddlers, peanut stands, shady hotels, chauffeurs, merry-go-rounds, steam boat captains, poolrooms, circuses, clubs, whether for white folks or for "black an' tan" might not like this new comrade in the confraternity of

licensed trades but the doctor would be their equal at last, just the same, unless he got in bad with the "bossman."

The whim or prejudice of a ward boss would control the right of an educated skillful physician to keep a people well. Even the savages respect their "medicine men." Heaven help civilization!

Since Medicine is a science, these unscientific adventures on the part of an ignorant laity are pathetically humorous. Through the centuries men have labored to discover the hows and whys of the ills of the body. Due to medical discoveries, many diseases have become extinct. Many known diseases are under control. Medical progress lessened the death record in the World War to only a fraction of what it had been in previous great conflicts.

Looking these accomplishments in the face, it is ridiculous for the cobblers, the bank presidents, the school teachers, the stenographers, the bookkeepers, the street car conductors, the plumbers, and all of the other allied trades and professions and the citizenry at large to presume to tell the doctors how medicine should be practiced. To be sure, for years untold, this has been the prerogative of the old wives and the village gossip. That was hard enough on the doctors. The present situation is decidedly worse. And what doctor, may I ask, dare tell a plumber how to lay a gas pipe or a bookkeeper how to find his cash shortage?

Of course, the plumber has a union. That is one good point about the plumber that is worthy of emulation by the physician. If the doctors would get together oftener, longer and stronger, we would all be better off. There's a pretty good text for the average physician in the nursery tale of the "three wise men of Gotham who went to sea in a bowl."

If some radical change is not made by the doctors all over the country in their attitude for organization and mutual protection and against every so-called reformer who is merely seeking a little personal press-agenting and prestige at the expense of health of those who can't help themselves, nine-tenths of the physicians of the country are going to find themselves at sea in something worse than a bowl. The other tenth will have become so contaminated by corporation highbinders that the bowl will be too good for them, even if the bottom is on top. There are

plenty of doctors masquerading as sheep who ought to be in wolf's clothing to more than make up that other tenth. If this buffoon legislation keeps on we will all be at sea, both floundered and shipwrecked. The trick is being turned against the health of the nation because there has been so little attempt at educating the public at large; and (shame to confess it, true though it be), the profession itself to the jugglery staged by reprehensible interests whose god is selfishness and for whom the self-lessness so necessary to a doctor's existence is a non-existent vacuity.

Crucifixion is as old as civilization. But shall the crime against principle be repeated at every whip stitch because some pervert sees a chance to make material wealth for himself out of the blindness and the bodily ills of his fellow men?

Every mistake medicine has ever made, every misstep taken in its groping towards the light, is brought out and held up against it by these reformers and would-be practitioners. How could they stand the limelight? If men who have spent years in research err occasionally in diagnosis, how much better off will the community be from medication at the hands of the neighbor next door, or the newly-landed immigrant across the street? And when you cure your pains by ballot, that is what we are coming to.

If a law can be put into effect that will permit a doctor to charge only a fixed amount for the dispensing of liquor by prescription, there is no reason why another law cannot be passed that will detail the amount he may dare charge for prescribing digitalis, or salvasan or quinine or blue mass. Of course by that time he will not be able to charge anything at all for a shot of morhpine to a dying patient in hopeless pain. This, of course, will permit all the sadists and masochists to reflect on the tortures of suffering humanity. And, of course, there is another possibility that if the state is continuing to control the venereal disease clinics that it will be unnecessary for any physician to administer this specific. Why should people pay for what they can get for nothing? It won't matter anyway when the card index system is working, for there will be no detail of private life that will not be written and card indexed in the public life of every private citizen. Mercury fountains with public needles can be put up at every corner and the tax rate raised. And, by the same deduction the citizenry may wake up to find itself without

any doctors worthy of the name. Exactly this is Germany contending with today. Men born to serve their fellowmen in the pathways of therapeutics or surgery of nerve control are drawn to this service under the same impetus as men enter the fine arts or the trades or the professions. To them it is a medium for self-expression. Repress this opportunity for self-expression, put them into the bondage of a legislative and ballot box slavery and what will you have? Desertion from the profession of men who will not submit to the empanelment and prostitution of their higher selves, and the men and laws responsible for this desertion, will suffer the most.

Shades of Abraham Lincoln! Was bondage abolished only for the black man. Does the fourteenth amendment come to its death through interpretations of the eighteenth amendment? And if so, what will the citizenry empowered under the nineteenth amendment have to say of a bunch of legislators that make a bale of tar barrels out of the highest possibilities of their spiritual and physical selves?

When politicians begin to traffic in the bonds between the visible and the invisible—the health of the nation, the maternity of the nation—those processes that keep a man alive or fail to prolong his existence—then indeed is decay fixed fast to the roots of national life. God save the country—only He can!!

Business men and legislators have had much to unlearn or to reconstruct after leaving college. Now we carry the added burden of a vast influx of bolshevistic and autocratic thinking and of irresponsible uplift endeavors, to a point where it behooves us to consult a compass.

A young man who plans to invest six years' time in the study of medicine is entitled to know that powerful agencies have already placed wedges which would deprive him of the fruits of his labor. If these agencies fail of their effort it will be because of a national clearness of vision which has as yet shown but partially in meeting with these propaganda. The proposals come back with each new legislature. The principal fights in the past have been on the compulsory insurance proposal and have been staged in New York, Massachusetts and California. In California it was defeated only after referendum to the people of the state. The issue

is one of Americanism, not politics. If it wins, the doctor goes out first and at once and we will no longer have the family physician and the specialist of the past. The relation between state clinician and patient will not be the same. Then, when the republic has reverted to the patriarchal, our children may console each other with the thought that no other form of government ever stood up either. This Republic, however, can stand if only its successive generations can avoid the mistake of thinking that the founders were old fogies.

Nothing fundamental has changed since the Constitution was written. Nothing fundamental will change.

FIRST WAR VICTIM A PHYSICIAN, NOT DOUGHBOY.

After four years and five months' silence, discovery is made that the first member of the American Expeditionary Force to be killed in France during the World War was not a doughboy, but a physician—Dr. William R. Fittsimons of Kansas City, Mo., a lieutenant in the Medical Corps attached to Base Hospital No. 5.

Heretofore credit for the first sacrifice has been given to a doughboy and a monument erected to his memory in the Toul sector commemorating the spot on which he gave up his life. In the same belief the French awarded a citation to the father of Private George Ashburn of the First Division as the first victim offered by America to the Allied cause.

Now investigation discloses that Dr. Fittsimons, while assigned to the British forces at Dannes-Camiers, was killed on September 15, 1917, by a German bomb dropped at night in the town. The same bomb killed two other members of the corps and wounded three physicians and two privates.

While belated, the announcement now definitely fixes medicine's place on the honor roll of the war where it properly belongs and we are now satisfied. Marking the achievement of one of our kind, in fitting memory of his sacrifice in the flower of his youth, American medicine ought now erect a tablet in the town where Dr. Fittsimons fell.—Medical Pocket Quarterly, March, 1922.

STOP THE NEXT LEGISLATURE FROM
MAKING FURTHER TAX INCREASES.
MOUNTING COSTS OF LOCAL GOVERNMENT.

APPROPRIATIONS

1916	1921	1922
\$90,873,586.06	\$172,912,868.13	\$180,673,784.45

To members of the Civic Federation of Chicago and its Taxpayers Auxiliary: The foregoing figures affect all. We respectfully suggest—

THE REMEDY

Stop the next Legislature from making further tax increases.

Do it now.

Between now and April 11, Primary Election Day, you will be asked to vote for various candidates seeking the nomination of your political party for the House of Representatives and (in odd numbered districts) for the State Senate of the next Illinois General Assembly.

Give all such candidates to understand that the taxpayers, direct and indirect, of their districts will no longer tolerate the indiscriminate increases in taxation which have become a habit with the past few General Assemblies.

Give them to understand that this is the vital issue with every citizen in private occupation or business, who is compelled to pay for these tremendous increases in public expenditure, either directly in taxes or indirectly in higher rents and commodities.

We respectfully suggest that you address to these candidates a few questions calculated to call forth such information as you ought to have before casting your vote.

Urge them to answer these questions not alone to you, but to make an open declaration of their attitude—not a private pledge, but a public avowal.

The questions which we suggest that you ask of all candidates for the General Assembly who seek your vote are these:

1. Have you been asked by any group of public employees or others to pledge yourself to vote in the next General Assembly for still further increases in taxes or expenditures?

(a) "By what group or groups?"

(b) "For what purpose and on what grounds?"

(c) Was support to your campaign promised or implied in return for this pledge?"

(d) Have you signed such pledges, and, if

you have, do you not think, in fairness to yourself (see law forbidding pledging of candidates, Criminal Code, 592-4, Hurds, 1919, p. 1113) and to the great majority of your constituents, you should openly withdraw them now, in order that you may go into the General Assembly free to use your own best judgment for the general good, based on conditions then existing?"

2. "In view of the present great burdens of taxation and of rentals (in part due to high taxation) are you prepared to seek to reduce taxes wherever that can be done without injury to necessary public service?"

3. "Considering (1) that federal contributions to local government mean ultimate federal control of local government: (2) that Illinois is one of four States whose citizens must bear more than one-half of the federal aid expenses contributed by all 48 States: (3) that for every \$1.00 Illinois receives in federal aid, her citizens must pay in federal taxes of all kinds \$1.88 in addition to the \$1.00 for which they tax themselves locally; will you vote against new State and local expenditures, if they are urged merely that Illinois may secure its small allotment of some new federal aid?"

(Incidentally, ask your candidates for Congress what their attitude is toward creating new, and—for Illinois—expensive, federal aids. Illinois can care for its own unfortunates among mothers and children, and can finance its own schools without aid or instructions from Washington. She does not lean on other States and does not wish them to lean on her. The Legislatures of New York and Massachusetts have just overwhelmingly declined to share in the latest federal "aid"—carried in the Sheppard-Towner Act.)

4. "On all matters involving either increase or reduction in public expenditure or taxes, will you be guided by the facts, irrespective of political influence which organized groups of public employees may seek to bring to bear?"

This questionnaire, if followed up by citizens will have the advantage of bringing the whole subject of public expenditure and taxation into the light of day, and of weakening the practice by which highly organized bodies of public employees frequently with the approval or insistence of certain politicians, have been seeking to nominate and elect candidates contrary to the interests of the large body of the citizens by means

of private pledges and secret pre-election understandings. It is time that vital public matters were being handled on a basis of highest publicity.

It is of especial importance that this question be urged in this campaign when certain powerful political organizations, already in control of the largest tax-spending offices, are now openly seeking also to control the legislative branch of government.

Every taxpayer is entitled to know on primary day, so nearly as he can determine, where every candidate and his backers stand on questions affecting the voters' pocketbook—the public treasury.

DETAIL OF RISING PUBLIC EXPENSE SINCE 1916

Details of public appropriations¹ by the various tax-levying bodies for the purposes indicated in the years 1916, 1921 and 1922, follow:

TAXING BODY AND PURPOSE	AMOUNTS APPROPRIATED		
	1916	1921	1922
CITY OF CHICAGO			
General Corporate	\$27,587,207.07	\$40,939,780.76	\$40,082,437.14
Vehicle Tax Fund	882,952.00	2,213,223.00	2,250,000.00
Public Library	1,131,400.00	1,300,000.00	1,412,500.00
Tuberculosis Sanatorium	1,040,000.00	1,803,746.00	1,658,000.00
Police Pensions .....	.....	2,600,000.00	3,010,000.00
Firemen's Pensions .....	.....	550,000.00	560,000.00
Municipal Employees Pensions .....	.....	1,225,000.00	1,435,000.00
Interest and Sinking Fund	5,247,997.39	8,535,557.23	8,227,996.08
Traction Fund	2,224,500.00	110,000.00	50,000.00
To Be Reimbursed	1,687,600.00	.....	.....
From Bond Funds .....	.....	18,285,296.14	15,277,752.64
Additional Roosevelt Rd. Viaduct, Bridge, etc. ² .....	.....	.....	1,500,000.00
SCHOOLS			
Educational ³	17,325,000.00	34,000,000.00	36,000,000.00
Building Fund ³	6,300,000.00	10,500,000.00	14,000,000.00
Playgrounds ³ .....	.....	550,000.00	600,000.00
Free Text Books ³ .....	.....	1,400,000.00	1,500,000.00
Teachers' Pensions .....	.....	.....	500,000.00
COOK COUNTY	13,182,531.67	19,602,220.85	23,482,713.33
SANITARY DISTRICT	9,072,597.56	19,459,743.23	19,389,354.34
PARKS AND FOREST PRESERVE	5,191,800.37	9,738,000.92	9,738,000.92
TOTALS	\$90,873,586.06	\$172,912,868.13	\$180,673,784.45

FOOT NOTES TO PRECEDING TABLE

1. Appropriations seem to afford a better basis of comparison than expenditures because expenditures for 1921, in many cases, are not yet officially reported, and of course are not possible for 1922. In the case of the three major park districts and the sixteen small park districts within Chicago, the amounts extended by the County Clerk are used for 1916 and a computation based on the 1921 rates and valuations for 1921, 5.5 per cent being deducted for loss and cost in collections of taxes in each instance. For 1922 the 1921 figures are used as an estimate. In the case of the Forest Preserve, expenditures were used for 1916, and appropriations for 1921, the latter being estimated for 1922, appropriations for this year not having been made as yet.

2. This additional appropriation was made out of a non-recurring item of miscellaneous revenue (a sum of compensation money from the Chicago Telephone Company which the city for a considerable period had refused to receive for technical reasons in connection with a dispute) and \$500,000 in the corporate fund total for 1922 appropriated for street cleaning after passage of the regular budget, came from the same source.

3. The appropriations made by the Chicago Board of Education for 1922 and certified to the city council as a basis for the 1922 tax levy, appear to be considerably in excess of what the maxima rates for the several purposes would produce, especially deducting the customary 5.5 per cent for loss and cost in collection. This is particularly true of the building fund levy. It is also true of the levy for free text books. Last year the Board of Education levied \$1,400,000 for free

text books which is in the process of collection with this year's tax bills. In 1921 the Board of Education published a pamphlet in which the estimated cost of supplying free text books, based on post-war peak prices, was given as follows: 1st year, \$936,000; 2nd year, \$589,300; 3rd and subsequent years \$465,000. In view of these figures and of the fact that no text books were purchased for the first half of the present school year, and that Superintendent Mortenson's orderly plans for securing estimates were overturned by the Board, and that a most confused situation now exists, taxpayers may well be inquisitive as to what is being done with the free text book money now in collection, and what will be done with the additional \$1,300,000 now ordered levied for 1923 collection.

The foregoing recommendations and items of information are published by order of the Executive Committee and Advisory Board.

CIVIC FEDERATION OF CHICAGO BULLETIN

No. 47 (MARCH, 1922),

HENRY G. ZANDER,

President.

Attest:

DOUGLAS SUTHERLAND,

Secretary.

DOCTOR, TELL YOUR CONGRESSMAN HOW YOU FEEL ABOUT IT PREMEDICATED ALCOHOL

A plan on foot in Washington which, to the average physician, may sound reasonable and possibly desirable, is to permit the use of denatured, or, as it has been dubbed, "premedicated" alcohol for use in remedies intended for internal administration. Perhaps we would be more inclined to look with favor upon this proposal if it came from some other source: but, in view of the fact that it is being sponsored by the proprietary medicine interests, we feel like scrutinizing it pretty carefully.

The plan, in a nutshell, is this: Alcohol used in medicine shall be "premedicated" with one or more of the ingredients used in that medicine,

and when it is so premedicated, it shall be free from tax.

Sounds reasonable enough, doesn't it? But stop a minute and analyze the situation. First, what does this mean to the proprietary medicine manufacturer? It means simply this: Most of his goods are sold at fixed prices per bottle. If he can get his alcohol free, the "spread" between cost and selling price will be greatly increased, also his profits. Such an arrangement would put thousands of dollars annually into the pockets of every man or firm manufacturing a patent medicine selling at a fixed price.

Simple enough when only one or two preparations are concerned. But, before passing judgment, turn to the other side of the picture. The pharmaceutical manufacturer puts out 500, 1,000 or 2,000 different alcoholic preparations; in other words, instead of having to deal with one or two, or even half a dozen formulas of denatured alcohol, he would have to have as many, or nearly as many alcohols as he has preparations. This means an enormous stock of alcohol on his shelves, and large capital tied up. Consequently, the saving to the consumer would necessarily be small.

Furthermore, our official tinctures, elixirs and fluid-extracts are made according to methods developed by the experience of one hundred years or more. In some of these preparations, pure alcohol is used; in other, 10-percent alcohol,—different dilutions, according to the solubility of physical properties of the drug to be treated. For instance, in denaturing or premedicating digitalis with 95 per cent. alcohol, we get quite a different preparation than we should if the strength of alcohol required in the Pharmacopeia were used.

Still further, the scientists interested in the development of the Pharmacopeia, such men, for instance, as Dr. Fullerton Cook, chairman of the Revision Committee of that official book, declared that, to adopt a plan of premedication like this, would endanger our official standards of hundreds of preparations and make the book itself a joke.

And, still further, the "premedication" or dilution of the alcohol would be done in the distillery, by the distiller's employes and not by pharmacists and others trained in the handling of pharmaceutical preparations. The scientific control over the manufacture of these drugs would be lost.

It seems to us quite clear that the only one who would benefit by "free" and "premedicated alcohol" of this kind would be the manufacturer of such preparations as S. S. S., Tanlac, and Lydia Pinkham's Compound. The price to the doctor and his patient would be greatly affected, while the character of the preparations which he uses would be seriously endangered. Incidentally, the government would lose about \$20,000,000 of revenue annually.

I am sure that no physician who understands the situation would for a minute think of endorsing a dangerous plan of this character. Why not tell your congressman how you feel about it, and ask him to report to the proper authorities.—*American Journal of Clinical Medicine*, April, 1922.

NOTE: The pending legislation on this matter is of vital importance to the medical profession, to the teaching of pharmacy and to manufacturing pharmacy.

JUDGE OPPOSES HUGE DONATIONS TO UNIVERSITIES

VICKERY OF CLEVELAND, OHIO, SEES MOVEMENT BY WEALTHY TO "CONTROL THOUGHT"

Characterizing the gift of \$6,000,000 to Johns Hopkins university as another step by possessors of great wealth to "control the thought of the United States," Judge Willis Vickery of the court of appeals yesterday scored the educational distributions of the Rockefeller foundation and similar institutions.

"These huge gifts to great colleges are really an effort to set up in this country an aristocracy of wealthy educated people," said Judge Vickery. "They are steps to control the thought of the people by the wealthy few.

"The time appears to be coming when, unless a student owns a high-priced automobile, he won't want to go to college because he will be snubbed. Last year I visited one of the colleges which has received immense donations and, looking over the automobiles on the grounds, I thought I was visiting a country club."

Judge Vickery charged that efforts of bar associations to discourage the profession of law by men without college education was also a step in the direction of an aristocracy of educated people.

"A man doesn't have to go to college to acquire

an education today," said the judge. "Any man who can read and write and is industrious can educate himself."

NOTE: Judge Vickery is one of the best judges in Cleveland. He has things sized up right.

IT IS TIME TO ANALYZE THE MOTIVES OF THE LEADERS IN OUR PROFESSION

The doctors who make up the rank and file of the medical profession should bear in mind one fact, and that is that not one of the various schemes to socialize medicine has developed in the minds of lay individuals. They are proposed and supported by erstwhile leaders in the medical profession. The public is not demanding any such schemes as "pay clinics" as inaugurated by Cornell University, or "community clinics" advocated by Hugh Cabot of the University of Michigan, or the fifty-seven varieties of free clinics for the well-to-do proposed by public health officers. The people in the United States, even the poorest, receive better medical and surgical attention than is given the people of any other country in the world. It is time to analyze the motives of the leaders in our profession when they propose radical innovations in the way of care for suffering humanity. Usually there will be found a "nigger in the wood pile" in the form of a desire for personal preferment or profit. However, "the worm is beginning to turn," and henceforth the uplifters in our profession will have to watch their steps!—*Indiana State Medical Journal*.

REFUSAL OF PHYSICIAN TO TREAT PATIENT WILL SUBJECT HIM TO PROSECUTION

Since the establishment of workingmen's compensation in the State of Washington, several situations have arisen relating to the medical profession which have been the subject of considerable comment and discussion. The latest incident of this kind has a very important bearing on the practice of medicine in this state. The Supervisor of Industrial Insurance announces that under the provisions of the Industrial Insurance Act any physician is required to treat any injured workman applying to him for treatment who is protected by this act, and a refusal on the part of the physician to comply with the request will subject him to prosecution.

If this requirement is made valid by legal decision, it will introduce into the practice of medicine a situation which has never yet existed in the past history of the healing art. From time immemorial the physician has enjoyed the privilege of treating an individual patient or not, according to his own wishes and desire. According to this interpretation, he is no longer a free agent in the practice of his profession, but is subject to the orders of others. If this revolutionary principle has been introduced into the practice of medicine of the State of Washington without the knowledge of the medical profession, it is high time that such a condition received wide publicity. We do not believe that such interpretation of the law can be established in the courts. It would be class legislation of the most aggravated form. At the present time no class of citizens are obliged to render services to any one against their own will or desire. This is a situation which ought to interest every member of the medical profession. A final decision in the matter will be awaited with interest.—*Northwest Medicine*, March, 1922.

THE ESTABLISHMENT OF PAY CLINICS BY A UNIVERSITY IS INIMICAL TO THE BEST INTERESTS OF THE PUBLIC

The Bronx County Medical Society of New York, at a meeting held on November 16, 1921, unanimously adopted the following resolutions and recommendations:

"Resolved: That we protest against the abolition of the Poor Clinic by Cornell University and against the entrance of the University into commercial medicine for a profit.

"That the establishment of Pay Clinics by a University is inimical to the best interests of the public at large and of the medical profession in particular because such Clinics are in direct competition with the physicians who practice in the immediate and remote vicinity.

"That the offer of cooperation by the university with the general practitioner is a blind to beguile the latter to refer cases to them.

"That we condemn the conduct of the physicians who permitted their names and their positions to be used for such crass newspaper publicity as the advance announcements contained.

"That such advertisement is distinctly adverse to the best actions of Medical Men and to the

Code of Ethics as established by the American Medical Association.

"That we recognize that these very men will not and cannot offer their services to the patient but will merely act in an advisory capacity far from the clinic rooms.

"That for all the above reasons we recommend that the respective County Societies to which these men belong and under whose jurisdiction Cornell University Medical School exists shall take proper and fitting action to reprimand these men and the University, and furthermore, shall recommend to its members that they not accept positions in a Dispensary that works to the economic detriment of their brethren."

THE MEDICINIZING OF SOCIALIZATION. THE NEW REMEDY TO CURE ALL ILLS THAT FLESH IS HEIR TO.

*The Journal of Radiology, Omaha, Nebraska,
January, 1922.*

Dr. Frank Billings of Chicago made fervid appeal to the members of the Douglas County Medical Society at Omaha, Nebraska, the evening of December 13th last, to adopt what he proposed as a constructive programme, and which he said, if followed through, would certainly stop all loose talk about the socialization of medicine.

The program which he argued was worthy the serious consideration and the whole-hearted support of the entire medical profession, both through the American Medical Association and the various local societies of medical men scattered broadcast throughout the United States, contemplates that the medical profession shall procure the introduction into and passage by every state legislature of an enabling act. That act, it is contended, should be so drawn as to give the people power to tax themselves for the erection of hospitals in any political subdivision (hamlet, town, county or city ward) and for the purchase of laboratory and other diagnostic and therapeutic instruments and supplies. *This would have the effect, according to Dr. Billings of "MEDICINIZING SOCIALIZATION," an expression which must be condemned as being both extremely naïve and nebulous.*

Viewed from the sociological side as well as the professional side, *such a proposition needs very careful analysis and critical study.* There can be, of course, no question about the right of the people to exercise this function of the police power of the State, if they so choose. But such a method of meeting the issue now confronting the public and the profession, *i. e., safeguarding the public health, is one that may well be considered at length in order that we may not all find ourselves in a sorry dilemma later, physically, financially, governmentally and morally. If we are to profit at all by the experience of the British public with its panel system of medical practice, or the*

paternalistic pauperization that has characterized governmental medicine in Germany, or even some of our own experiences in other phases of the socio-economic problems, there is certainly grave question whether the plan proposed offers any real, substantial benefit for the improvement of the present failure of our medical functioning. In any event, it smacks altogether too much of Marxian philosophy to be accepted per se either as an irreducible minimum, guaranteeing the public health, or as a quid pro quo to offset the insistent demand of the general public for a more intelligent and accessible medical service.

More than this, it is our own notion that *neither the medical profession nor the general public can afford to approach this problem in a controversial spirit or in the attitude of either trying to put something over on the other.*

Wherefore, we make bold to say, that if the medical profession adopts this proposal, and requires the lay public, through taxation, to provide the working tools of medical ministration, *it must be prepared to eat the other and bitter half of the apple* and accord that public the inalienable right to prescribe the conditions under which those working tools shall be used, and the fees which the medical profession using them charges back to the public in conjunction with their use. That is elementary. Our educational system, the United States Postal Department, and our other governmental agencies are cases in point. The established principles of public policy guarantee this safeguard to the taxpaying public.

Anything less than this, any other interpretation of the law, would be in absolute contravention of those constitutional guarantees and inviolable principles on which our government and social institutions rest. *To apply any other rule to the medical profession for the purpose of differentiating it from all other socio-economic units would most assuredly open the door to the carpenter, the engineer, the mechanic, the butcher, the baker and the candlestick maker, to demand the application of the same principle in their respective cases, and to insist that the public lay taxes on the wealth and life of the community for the purpose of providing each and all of them with the necessary housing facilities and implements for their particular socio-economic functions.* Otherwise, those constitutional guarantees written into the supporting structure of our social government fabric with the sweat and blood of our forebears, would become contemptible scraps of paper. So it is, that such a proposal consciously or unconsciously, *is a plea for class legislation, fathered in bigotry, mothered in iniquity, and conceived in social intolerance.*

Dr. Billings is recognized as one of the leading spirits of the American Medical Association. To him is gladly accorded the honor which goes with the deanship. We would not detract a single jot or tittle from either. But we must insist that *Dr. Billings has not thought his proposition through to its logical and inevitable conclusion, despite all protestations to the contrary.* Being honest with ourselves, however, requires that we perform the unpleasant task of taking

issue with Dr. Billings and calling his attention to the indisputable fact that, in making this sort of a proposal, *HE IS, IN FACT, ADVOCATING THE RANKEST KIND OF STATE MEDICINE*. Certainly when a number of such institutions as he proposes have been established, it will be necessary to co-ordinate them and govern them, and being publicly or governmentally owned institutions, the logical place for the lodgment of that responsibility would be in the department of public health.

Brushing aside all these fundamental problems, such a proposal is at least an admittance, willy nilly, by a high priest in the preatest organization of medical men on the face of the earth, that medical men as such are not able to stand on their own feet. It is a sweeping denial of all the preachments of self-sufficiency and human service which have been the chibboleth of the medical profession since time immemorial. It is a public confession that the ideals and purposes of the medical profession are inherently so far flung that the medical profession is unable to apply them practically to a human living world and make them minister to a man's man in a man's fashion.

Enough of this. Fundamentally, the weakness of Dr. Billings' position, lies in the fact that he, like many other medical litterateurs, has constructed the warp and woof of his vision of the future of the medical science on the restricted notion that preventive medicine, or the question of public health means nothing more than the exercise of the police power of the state for the protection of its citizens against the overt act of any individual citizen infected with or exposed to communicable disease.

This is the point, where we diverge. Preventive medicine means infinitely more than that or it is utterly fallacious and hold no promise of future stability or large social purpose for the medical profession. Preventive medicine must mean more than that or the public can pin no faith on the science of medicine as a socio-economic agency in the intelligent upbuilding of the public health.

Preventive medicine must mean the science of correct living imparted to the general public in such a manner that the public will know how to safeguard and preserve its ability to do a day's work. Nothing less than that conception will measure up to the standards of the medical profession or the confidence reposed in medical science by men and women who have the will to work, the ambition to achieve, and the desire to procreate.

Others hold somewhat parallel views. Dr. Boyd, professor of bacteriology and preventive medicine for the University of Texas, says:

"Preventive medicine may be defined as that branch of applied biology which seeks to reduce or eradicate disease by removing or altering the responsible etiological factors. * * * Included within its scope are hygiene and sanitation."

Dr. Dörland, a member of the committee on Nomenclature of the American Medical Association, defines preventive medicine as:

"That branch of study and practice which aims at the prevention of disease."

These definitions might be multiplied indefinitely, but that would simply be a cumulative effort. Those quoted suffice to prove that preventive medicine has a larger scope than that comprehended by Dr. Billings' plan or possible of accomplishment by the exercise of the police power of the state, and *refute finally, emphatically and once for all, any assumption that the public health can be made subservient to, or wholly dependent upon any scheme or plan which functions through the police power of any political unit or group of political units.*

We have no desire to quarrel with Dr. Billings. On the contrary, it is our earnest hope that this discussion will help to clarify his thoughts and in return he will help us to set down in orderly fashion the enormous mass of confused ideas which are bothering us.

To this end, it seems well here and now to suggest that whatever functions the police power of the State enjoys, or may be made to include by future legislative enactments, are incidental to the larger purpose of the medical profession. This brings us to an apparent point of agreement with Dr. Billings, to-wit—that what the medical profession needs now more than anything else is a social concept of medical practice. Where Dr. Billings and our own are diametrically opposed is on the question of the method by which that social concept can be created and made to function intelligently for the public good. Though even Dr. Billings leans pretty heavily in our direction, as evidenced by his oft repeated statement that the medical schools of the present day are not educating medical students in such a way as to fit them for the performance of their professional duties toward the public; and further, by his assertion that the medical profession cannot shift the responsibility for these problems to the public, but must do something on its own account.

Speaking broadly, there are two phases of this part of the subject under discussion which must be made to harmonize in purpose although it may not always be possible to make the successive stages of their development coeval. These are first, the attitude of the medical profession toward, and its knowledge of, the socio-economic requirements which any organic health program must meet; and second, the measure of voluntary public confidence which can be called into existence in support of an organized effort to achieve a better public health as a social asset.

In this connection, we are constantly reminded of the wisdom of the Biblical teaching, "Come, and let us reason together." For it must be conceded by all rightminded and thoughtful persons that it is the sheerest kind of nonsense to expect the medical profession to lay down anything like an inclusive or conclusive health program without taking into account all the etiological factors which produce abnormal and unhealthful biological results. By the same token, it is also the sheerest kind of nonsense, to expect the lay public to understand and avoid these results unless they are first fully informed concerning the etiology behind them.

More than all this, the general public, as distin-

guished from the medical profession, *is not going to blindly submit to any universal or sweeping reformation of its intimate and personal habits without good cause.* Or stated conversely, the public will insist upon demonstrable and satisfactory evidence of both the feasibility and practicability of any program which strikes at or seeks to elevate the standards of public health.

That is why the proponents of State Medicine or social medicine, speaking now of *the governmental practice of medicine in whatever form it is proposed or by whatever name it may be called, are so irresistibly funny.* They argue that a thorough going public health can only be achieved by the calendar of governmental power. *They seem to have fallen into this specious conclusion as a result of military medicine during the late world convulsion, when the medical staff was able to prescribe hours of work, conditions of housing, dietary measures, prophylactic treatment, vaccination, inoculation and the Lord only knows how many other restrictions, specifications and mathematical calculations—all injected into every man's daily routine by the exercise of all the latent energies of a war mad world intent on crushing supermen by the development of greater supermen.*

So far as peace-time government is concerned, however, that sort of a scheme is a pure Marxian sophism. It is impossible to escape, though the ardent advocates of state or social medicine always try to dodge, the part the individual man, woman and child must play in any serious effort to improve social standards whether they relate to health or to any other specific phase of our existence. That is why it is absolutely impossible to accomplish a universal knowledge of and obedience to, the science of health by *a mere twig of the thumb of the police power of the state. Compulsory rules of conduct, even though they include both the profession and the public, will not, if we understand the principles of American sovereignty, beget a wholesome respect for medical science, but rather will reduce it to the political and social pooh bah state, a thing perhaps, to be tolerated as a necessary evil, but never accorded that mass individual support which always characterizes a common cause for a common purpose, grounded in intelligence and mutual understanding.*

To say, or even to assume, that the nation, whether speaking individually or collectively, can be purged of all its unscientific, inhuman and unhealthful purposes (concerning many of which the medical profession itself does not now possess specific knowledge either preventatively or curatively) by or through the exercise of the police power is neither warranted by fact, nor justified by the most Utopian dream of the future development of the human race. *Men and women are not likely to be remade over night by a copious physis of health propaganda administered by the medical profession or any other group through the police power.*

As we see it, the immediate problem which confronts the medical profession as well as the general public, is a reconstruction of medical practice in order

that it may conform to the socio-economic needs and in order that the medical profession may be enabled to come before the public with clean hands when it asks the support of the public for any program it may have mapped out. Such a reconstitution must of necessity be based on an earnest effort to comprehend the medical profession's job as a socio-economic unit charged with full responsibility concerning the public health, and must call for the intelligent use of the great multitude of agencies already in existence before *the public shall be asked to add to the tax budget the cost of others.*

The incident which is the subject of this discussion emphasizes and furnishes irrefutable proof of the fact that the medical profession is not now paying the price in MENTAL STRESS which insures the correct interpretation of the most important phase of development in the history of medical science. It must pay that price or suffer the consequences. It is to the performance of that individual responsibility resting on the medical profession that this discussion is directed. It is to that goal our eyes must turn for the answer to this great question. The ultimate objective of the medical profession can never be attained in any other way.

CONCERNING "A VERY GRAVE CHARGE"

To the Editor of the Medical Record:

SIR:—My attention has been called to a letter in the *Medical Record* of Feb. 18, headed "Denial by Proxy of a Very Grave Charge," and signed by Dr. J. Milton Mabbott of New York City. I should pay no attention to this letter if it were not for the fact that it might be read by people not familiar with the facts of the narcotic situation and the history of its development, and who may not have read my resolutions and speech in Congress. The *widespread recognition of the need for the inquiry asked for by me and the conditions outlined in my speech upon which the demand was predicated, is shown by the countrywide support and indorsement of my action, and it makes me hesitate to trouble to answer this letter.* However, since, to quote Dr. Mabbott, it may "convey an entirely erroneous impression to persons unfamiliar with the facts," I will simply make an observation or two, and let the matter rest there.

It is regrettable that the letter signed by Prentice and Harris and Hubbard and Greenfield, appearing in the *Brooklyn Eagle*, and which Dr. Mabbott seems to think contains so much valuable information, was not published in full in his letter. However, I do not blame him for not including it, because it answers itself to anyone who knows the facts outlined in my speech. *There is no parallel to it in history outside of the case of the "Poo Bah" in "The Mikado," who could quote himself under the "proxy" of his various positions to prove anything he might say.* Please add this *Eagle* letter to the following incomplete list of their interlocking activi-

ties and committees, etc., which I printed in my speech in Congress on Jan. 12, and which I have had mailed to most of the physicians of New York. The letter in the *Eagle* makes an interesting addition to the list of activities and "proxies" of the "Poo Bahs," and relieves me of any further necessity of discussing this interesting bit of epistolatory evidence in which they further involve themselves.

The letter in the *Eagle* and the letter in your journal prove how wise it is for this group not to come out into the open themselves and say much, but to do their "denial by proxy."

The following list is taken from the *Congressional Record*, Jan. 12, 1922, page 1336, and might be headed:

SOME OF THE ACTIVITIES AND PROXIES OF THE POO BAHS

It is interesting to pause for a moment and scan the lists of so-called important medical committees from which have come announcements whose influence has more or less dominated the narcotic question for the past two years. For example:

1. Committee on narcotics, Council of Health and Education, American Medical Association. There we find Harris and Prentice.
2. Committee on narcotics, New York County Medical Society; Harris, Prentice, Hubbard and Healy.
3. New York State Department of Drug Control, stated to have been operated under the influence of Harris, Prentice, Hubbard and Lambert.
4. New York City Department of Health. Narcotic administration directed largely by Hubbard and Copeland.
5. Legislative committee, New York County Medical Society: Harris, Prentice and Healy.
6. Health committee of Greater New York, whose report was printed in the *New York State Medical Journal*, May, 1920, as an argument in favor of the Cotillo bill: Harris, chairman; Hubbard, Prentice, and Healy reputed to be members of influence.
7. Cotillo and Fearon-Smith bills (New York), stated in print to have been written by Harris and Greenfield.
8. Report of narcotic committee of New York County Medical Society, read by Prentice. Committee: Harris, Prentice, Hubbard, and Healy.
9. Appeared at Albany in support of the above bills: Harris, Hubbard, Prentice, Healy, and Greenfield.
10. Appeared at board of health to advocate municipal code to conform with these bills: Hubbard, Prentice, Healy, Greenfield, etc.
11. Editor of bulletin of department of health, New York City: Hubbard.
12. Said to have been referred to from heads of administration at Washington as men to talk to for narcotic information and rumored to exert great influence with local offices of prohibition and

Department of Justice: Harris, Hubbard, Prentice, and Greenfield.

We might go on with this at considerable length, but the above are sufficient examples of the concentrated influence of these few men in important places of authority and announcement. It would be interesting to discuss the actual qualifications and connections of this interlocking directorate, but time and space would be better utilized in outlining the general subject and leaving these matters of detail to a future investigation.

So if you will add to this list an "unlucky thirteen," in which they still further "put their foot in it" by quoting themselves, in Nos. 1, 2, 5, and 12, it will make another interesting exhibit. If you could find space for the original letter mentioned by Mabbott, I shall be very glad to try to get a copy of it and send it to you. It shows clearly why it is necessary for these people to use "proxies," and needs no answer other than the exposures of the above list.

My resolutions asking for investigation are simply the reiteration of requests that have come from all over the country and from many places. They and my speech are simply the collecting of a small part of the often recorded facts and exposures to which administration, medical and lay, has paid no attention, and whose neglect has permitted the narcotic situation to come upon this country and develop. My work is in the open, and is built upon the records and past experience. I need no "proxies." *The record speaks for itself.* All I have done is to present part of it where it can be no longer ignored; and the response and support from all over the country shows how badly it is needed and that this matter be taken out of the hands of "proxies" and brought out into the open. As to Dr. Mabbott's quotation of Congressman Mill's speech, I simply ask my fellow member in Congress to look up the evidence and record and see if he would not reverse his position and join in the growing demand for an investigation in a place where it cannot be controlled by any clique or interest.

Since making this speech and resolutions, I have been in receipt of communications from all over the country. They strengthen my position, and I want to say that if I had had the information then that has come to me since, my speech would have had, if possible, more direct statements than I have used.

Apparently since the rise and influence of these interlocking activities and interests and their influence over administration, these things and this situation have become inconceivably worse, and not to be longer tolerated by a self-respecting medical profession and a free people. If the medical profession's own committees and officers will do nothing to correct this state of affairs or to help the profession, it certainly was time to bring it before Congress. Let us eliminate the "proxies" and the secret conferences and committees, etc., and expose this whole

medical farce-tragedy and get the whole thing out into the open.

LESTER D. VOLK.

House of Representatives,

Washington, D. C.

Medical Record, March 11, 1922.

DEEDS VERSUS WORDS

To the Editor of the Medical Record:

SIR:—In a recent letter to the Editor of the MEDICAL RECORD, Dr. J. Milton Mabbott says, "After a preamble relating to the defense of members of the Society who were awaiting trial for indictment by a Federal Grand Jury for alleged misconduct under the Harrison law, in advocating that our counsel should aid in their defense, if preliminary investigation seemed to warrant such procedure, I put myself on record as follows: 'In other words, I believe your action and the Society's position should be determined in every case on its merits, but giving the benefit of the doubt (if there be elements of doubt) to our accused fellow-member, be he great or small, be he accused of a great or small offense, and without undue deference to the rating of the interests arrayed against him.'"

Fine words, but "fine words butter no parsnips." What has actually been done? Take one example. A "fellow member" Dr. Christian F. J. Laase was accused, tried, acquitted, and died as a result of what he went through. What was done in the New York County Medical Society about his case?

Dr. Mabbott is distressed that those mentioned in Congressman Volk's speech should be asked to vindicate themselves, "and at their own expense." How about Dr. Laase? Was Dr. Mabbott perturbed because that member had to vindicate himself at his own expense and undergo prosecution and persecution, at a final cost which included his life? Doctor Mabbott should be heard from on these points. What has ever been done to find out the truth about the cases of Dr. Laase and of Dr. Bishop? Never mind any more evasions and "proxies" and words. What have he and his fellows on the inside of the officialdom of the Medical Society of the County of New York ever done to find out the truth about these two "accused fellow-members"? I would ask Dr. Mabbott to come out into the open and tell the facts. Never mind what he said, what has he done? What has the New York County Medical Society done to find out the truth about Dr. Laase and about Dr. Bishop?

If his friends are innocent they ought to be glad to have the investigation that Congressman Volk has asked for. What is there to get nervous about? If Dr. Mabbott knows anything he should tell it. It might help solve the drug problem.

JOHN P. DAVIN, M. D.

117 West Seventy-sixth Street, New York.

Medical Record.

March 11, 1922.

ON THE TRAIL OF THE NARCOTIC "POO-BAHS" IN MEDICAL OFFICIALDOM.

Do They Need Investigating? We'll Say They Do!

Congressman Volk Hands Them a Much Needed Wallop.

Doctor Davin Calls the Bluff Made by "Proxy" Mabbott.

The Medical Profession has been slowly "getting wise" to what has really been the machinery "behind the throne" in the narcotic drug and alcohol administration and "regulation" farce in its relations to the practice of medicine.

It will help the profession to understand it better however, to read the two letters which we are reprinting in this issue from the MEDICAL RECORD for March 11, 1922. Every member should read them before his delegate goes to the A. M. A. Convention this year. And every delegate should know that he is not representing "boobs" any longer in this narcotic matter,—and that we want it cleaned-up on the inside of our own officialdom as well as anywhere else.

The narcotic "POO-BAHS" of the Council of Health and Public Education are almost certain to try to put over something on the Medical Profession at Saint Louis again this year. They may change their "proxies", but they don't change their game.

An editorial in the MEDICAL RECORD on February 4, headed "A Very Grave Charge" ran parallel extracts from Congressman Volk's (a Doctor) speech and the report of the legislative committee of the Medical Society of the State of New York. It showed plainly that by official report, their own State Medical Society made the same charges against the "POO-BAHS" as Doctor Volk did in Congress.

On February 18th, J. Milton Mabbott comes to the defense of his gasping friends the "POO-BAHS" with a letter headed "Denial by Proxy of a Very Grave Charge,"—a letter which don't prove anything, evades the issues, and gets sanctimonious on the end. In this it copies after the article by Prentice in the Journal of the A. M. A., June 4, 1921, though with less arrogance and viciousness.

On March 11th, Volk and Davin handle "Proxy" Mabbott and the "POO-BAHS" in a way that should warm the heart of every honest medical man who knows anything about this narcotic administration mess.

It will be remembered that it was "Proxy" Mabbott who "put his foot in it" last year when he tried to answer the letter that Dr. E. S. Bishop published in the RECORD, under the heading "All Out of Step but Jim," and showed up "POO-BAH" Prentice.

Apparently "Proxy" and his friends in N. Y. County Medical Society and Council of Health "Officialdom" didn't learn anything from what they "got handed to them" in that correspondence series,

but had to come back for more. We'll "tell the World" they got it. Perhaps they would do better to stick to the secret conferences and star-chambers and packed-committees, and "back-stairs" methods. They don't seem to have any luck in the open.

By the way it is rumored that there was a mysterious secret "conference" in New York a short time ago, when some of them tried to get the druggists organizations, etc., to declare along the lines of the last Council of Health narcotic report, etc. But the druggists didn't "fall for it." Maybe they "smelt a rat."

The narcotic "POO-BAHS" may be able to put their sort of stuff over with the narcotic enforcement division of the Prohibition Enforcement Bureau. But they bump into a different proposition when they try to "kid" medical men and druggists who know what has been going on, and are "wise to their game," and know from actual experience something about this whole narcotic stench and the way it has been stirred up. "That is something else yet, again, Mawruss."

From the way the profession is waking up, the narcotic and alcoholic "POO-BAHS" of medical officialdom won't be able to keep on "kidding" much of anybody much longer. Abraham Lincoln said it,—*"You can't fool all the people all the time."* We are getting wise to this Council of Health and Public Education stuff. We need a little medical stuff for a change.

Keep your eye on them at Saint Louis. *Narcotic and alcoholic "POO-BAH" Haven Emerson seems to be leading the procession this year from reports that come in. Whether the ubiquitous lawyer Greenfield is an Assistant "POO-BAH" or only a "Proxy" we are not quite sure yet. Did anybody ever find out who he is, and where they picked him up?*

The Mulhall woman with a new organization, THE LEAGUE FOR DRUG CONTROL, which appears to have most of the narcotic "POO-BAHS" and "Proxies" either in it or "running with it," seems to bob up now and then. Whether she is still selling the NORMYLL REMEDY home booze and drug cure or not we are not informed. Read the advertisements, and what it says it can do! It is "some remedy." We'd show it to the Council of Health and Public Education if it would do any good. But their narcotic and alcoholic "POO-BAHS" seem to like that sort of stuff.

It is stated or inferred that the A. M. A. has instructed Emerson's bunch to draw up a model narcotic law. *When and how did the A. M. A. instruct the narcotic committee of the Council of Health and Education to draw a model narcotic law? And who furnishes the "model"? Emerson, Harris, Hubbard, Prentice, Greenfield and the Mulhall woman.*

Maybe that's their game this year. If it is, let's make them keep it in the open, where we can keep an eye on it. Don't let them put over anything on the Profession again this year with the star-chambers, and packed-committees, and councils and conference stunts.

Follow the example of Volk and Davin. *Get them*

out into the open. Make them show goods. Make them "come clean." Or,—if they don't do that, "treat 'em rough." If they have anything besides words and camouflage let them show it. If they haven't, make them get out of the way of men who have. We've had enough words and quibbles. Give us a little scientific medicine for a change, and honest interpretation of law.

In our last issue we reprinted a news editorial on the outrageous indictment of Dr. J. M. Manning of North Carolina, and his acquittal and exposure of conditions in attacks on reputable physicians, by irresponsible officials, or whatever is behind them.

Davin's letter in the *Record*, brings up a matter that has puzzled the medical world for two years,—the outrageous indictment of Bishop, and Laase, in New York.

We are asking the New York County Medical Society the same question Davin asked "Proxy" Mabbott,—what did the Officialdom of the New York County Medical Society ever do about or for the cases of Laase and Bishop? Or was it too busy trying to do something to them?

There is a general belief that there was and is a large Ethiopian in that wood-pile somewhere. We, like most people, have an idea that Bishop can tell a whole lot when he gets ready, and that Laase could have also if he had not been killed.

In the meantime it is one of the crimes of "POO-BAH" Officialdom that the one man in this country if not in the world, who has made the most scientific study of narcotics and addiction is kept indicted and suppressed when his help and work and advice is most needed.

It looks to most of us as if there was something "crooked" in the killing of Laase and the persecution of Bishop and some others. For the sake of the medical profession and the public it ought to be gotten out into the open and aired.

These narcotic laws have been juggled with long enough in the persecution and suppression of honest men.

WITH A DOCTOR IN CONGRESS WHO KNOWS ALL ABOUT IT—THE NARCOTIC PROBLEM

THREE IMPORTANT ANNOUNCEMENTS THAT ALL SAY THE SAME THING

1, Congressman L. D. Volk, M. D., speech in Congress; 2, Legislative Committee Report from New York State Society; 3, and *Harvey's Weekly* editorial; and a mighty lot of other comment all saying the same thing and making the same charges

And still the administration don't do anything about it!

Where is the nigger in the wood-pile?

Don't quibble over "formularizations," etc. The job is to find that nigger and get rid of him, and get medical work back into medical hands. That's

the issue, and the only issue, for medical men. It is the only issue,—just as expressed in the final American Public Health Association report, the criminals and *degenerates a police problem*,—and the rest a *medical problem* that the fake cure promoters, medical, legislative, administrative or otherwise, and the exploiters and the incompetent or exploiting officials should be made to get out of the way of the medical profession getting busy on and solving.

This is the issue in all our troubles, health insurance, and all the rest of them,—crystallized and made definite now and with plenty of collected specific evidence ready for use in the narcotic drug situation, with a Doctor in Congress who knows all about it already in the fight for the medical profession, and the public welfare and the sick.

THE PRACTICE OF MEDICINE BY NURSES

Since the editorial on this subject was published in the issue of December 15, further investigation shows that an indemnity insurance company operating in a city has arranged to care for accidents which may occur in a group of industrial plants. The system inaugurated is as follows: A physician and a corps of nurses are employed. In ordinary minor injuries, one of the nurses attends the case, and if she considers that the injury can be cared for by her, continues to dress the wound until the time for the regular visit of the physician in charge. If the injury is of a severe type the physician is called in the first instance. The nurses acting under the physician follow the rules laid down for the care of minor injuries. The question of the nurse's ability to perform this duty is not the issue. The law of the State is that no one may practise medicine without being registered as a physician, and provides, among other exemptions, that anyone may render an emergency service. No judicial opinion has been rendered as to the definition of an emergency. The dictionary defines emergency as "An unforeseen occurrence or condition calling for immediate action."

Everybody would agree that a fainting person, or one with hæmorrhage, should have emergency treatment before the arrival of a physician but, beyond conditions of that type, one may logically contend that since the State registers physicians and makes registration dependent on certain conditions, and further lays burdens on the physician, that no one may have the privilege of a physician without being recognized by the State as such.

Whether or not this contention is sound one may advance the opinion that continued treatment of even minor injuries without direction of a physician, must be the illegal practice of medicine, especially since, in the case of a nurse employed by an insurance company, the service is paid for. Even though the injured person does not pay the fee directly, he does so under the law governing industrial accident insurance, for the service of the operator carries, as one of the returns, an obligation on the part of the

corporation, or insurance company, to provide medical care.

If, then, these contentions are sound, nurses must refrain from practising medicine, for if they can be allowed to do so, there is a loophole in the law which physicians may properly object to, and remedial legislation should be secured.

If the insurance companies, industrial organizations and the professional staff employed by them, do not accept these views, the matter should be tried out in the courts, in order that the situation may be clarified. Nurses are accustomed to do as they are told by physicians, and are not intentionally blameworthy, and should be protected. It is hardly conceivable that any physician desires to deprive other practitioners of the lawful opportunity to obtain the business to which he is entitled, and it is probable that an understanding may be reached which will prevent future complications.

The medical societies should pass resolutions defining the scope and limitations of the work which may properly be performed by a nurse, or else have a judicial decision through a test case. If, however, members of a society should ignore the recommendations adopted, then more active measures could be taken, but in all probability, all would cheerfully comply with rules adopted.—*Boston Medical and Surgical Journal*, December, 1921.

THE FUTURE OF MEDICINE AND THE MEDICAL PROFESSION

The writer lays no claim to the gift of prophecy. He believes, however, that from a study of the recent past and present, we can at least determine what road medicine is traveling, and knowing this, can easily determine whither it will lead us.

The careful student of the history of the people of the United States can not fail to observe that progress has been attended by numerous actions and reactions. For a time, we wander to one side of the straight and narrow path that leadeth to the greatest good to the greatest number, and then reaction takes place, and we start in the opposite direction, crossing the path without heeding it, and wander again amongst the weeds. For years we permitted slavery to exist, although we had proclaimed to the world that all people were born equal. Finally the reaction to this was not only the abolition of slavery, but the giving to the slave the ballot along with his freedom. For many years we fostered the building of railroads, and gave their owners very unusual privileges. They abused these privileges in the way of rebates and the building up of one community at the expense of another, the charging of excessive rates, going into the coal business, etc. Then a reaction took place, and State Legislatures and the National Congress have regulated this to such an extent that there is scarcely a road in the country that is not now struggling for its very existence. It is not necessary to multiply illustrations. Numerous others will come to the mind of the reader.

Up to about 1890 medical education was in the

hands of the profession itself. Colleges existed in all the large and some of the smaller cities, that were owned and operated by the professors who taught in them. This led to some abuses; as the very existence of a college depended on its having enough students to pay running expenses, they were admitted without sufficient preliminary education. There was comparatively little individual instruction, no sufficient watch was kept on the student's progress, and when he came to take his final examinations he was sometimes passed from pity rather than for his scholarly attainments. These two faults did not lead to as low a level of practice as one would think. The better class of graduates recognized that they had yet much to learn, and proceeded to learn it, by diligent and persistent effort. The other class soon found that they were not a success in practice, and drifted out of the profession. The law of the "survival of the fittest" was at work. At about the time above mentioned, numerous laboratories became an essential part of the equipment of every college. Laboratories cost money, and it also costs money to hire competent men to run them, because the laboratory man must devote practically his whole working day to his laboratory. This made medical education much more expensive than it previously had been. It was not feasible to so raise the tuition fees as to make the colleges self-supporting under the new regime. As they were privately owned institutions, there was little or no hope for endowments—this is especially true of the funds controlled by the Rockefeller and Carnegie Foundations—and so most of the medical colleges sought and secured alliances with universities. It was a case of any port in a storm. There seemed to be nothing else to do. But it is to be remembered that when a vessel enters the port her captain relinquishes command to a pilot, and so it was with the medical colleges; they passed out of the control and management of the profession. What has been the immediate result?

First, raising the requirements for admission. Second, lengthening of the course of instruction. Third, scramble for the Rockefeller-Carnegie millions. Fourth, worship at the shrines of two fetishes—research and full-time teachers. Fifth, still further cost of a medical education. Sixth, smaller classes, and graduates who have lost the traditions of the profession, and none of whom are willing to practice in the rural communities.

Now let us examine these results a little more in detail. Raising the entrance requirements was a good thing, but it seems to the writer that specifying how and where he should receive the necessary education made a needless hardship for the student with the slender purse. If he has sufficient knowledge to enter medical college it is none of the college's business how or where he obtained it. The more he has depended upon himself in acquiring it, the better has been his mental training.

Lengthening the course of instruction was unnecessary and has not produced results commensurate with

its cost. The writer has been in a position to observe the work of internes for the last thirty years, and is firmly convinced that the internes of today are not one bit better prepared for the general practice of medicine than were the internes when the course lasted but three years. His observations have been confirmed by numerous other clinicians to whom he has talked.

The endeavor to secure some of the Rockefeller and Carnegie money has led to various schools adopting the ideas of the trustees of these funds as to medical education to such an extent that schools are losing all their individuality. It is like the proprietor of a hotel in a small town copying the menu of a large city hostelry and trying to imitate its cooking. The result is something no one wants to eat. If, instead of trying to imitate, he had served good country ham and fresh laid eggs, or recently killed fried chicken with cream gravy and hot biscuits, he would have given his guests something that was not only palatable and nutritious, but something he could not obtain so well at the hotel in the metropolis. One or two medical colleges so conducted as to teach men to be teachers instead of practitioners of medicine are capable of meeting all demands for this type of instruction.

As to research, no one will deny its value, no one will deny the necessity for its continuation, but to carry on research successfully one must have a genius for it. How much time, how much money—yes, and how much good tobacco—has been wasted in the name of research? If a man is born with the instinct for it, nothing will prevent his working at it, and more or less success is almost sure to accrue as a result of his labors; but if he hasn't that cast of mind, he better devote his time to learning what others have found out. No one is such a fool as to buy fifty mules and have them all trained to run, with the hope that one of them will develop sufficient speed to be a Derby winner. Not more than 1 per cent of the graduates from any medical college will ever do any research work that will add one iota to the sum total of our medical knowledge. Why, then, should the course be run for this one individual instead of the other ninety-nine, who with proper instruction and the proper atmosphere would make good practitioners of medicine?

As to full-time men, there are two kinds of teachers—good teachers and poor teachers. If you can find a real good teacher, and he is only willing to give the students one hour a month, it is worth while to secure his services. A poor teacher is not made a good one by calling him a full-time man and paying him a salary—and then the student has some rights. A small dose of ipecac will loosen a cough, but a large one produces nausea and vomiting.

Some years ago, when noting the present trend of medical education, in an address before the Ohio State Medical Association, the writer observed that if the time ever came when only a rich man's son could enter the medical profession it would be a bad thing for the profession, and a worse one for the

public at large. That day has almost come. In talking the other day with an old classmate of mine, who is one of the best, safest and sanest physicians in Cincinnati, the thought came to me that he was born on a farm, and then I remembered how many farmer boys were in medical college when we were. How many of them are prominent in the medical profession today, and how few farmers' sons now ever get through the portals of the medical college? Many of these boys, reared on the farm, were content to return to the village in the neighborhood of their birth and serve their old neighbors and friends as the family physician, and it can not be denied that they served them well. It can not be denied that many of them were the most respected citizens and the best beloved citizens in the neighborhood where they did their work. But the graduate of today has no thought of going to a rural community. He has spent too much time and money on his education to be content with the meager returns financially that are there to be obtained. He has lived in the city so long that he is quite weaned away from the old home community, and can see no charm in traveling over the hills and through the vales to see those in need of his help. Many towns in Ohio, Kentucky and Indiana that formerly had from one to three physicians now have none, and still others will have none when death removes the last one located there now.

The traditions of the medical profession are rapidly being lost. The noblest of professions is losing its nobility. In the old days the students learned the traditions of the profession from their doctor-preceptor before they went to medical college, and from their doctor-professor while in college. But the doctor-preceptor is dead, the doctor-professor is dying, and the school man professor, never having learned the traditions of the profession, can not impart them to the student. As a consequence, we see the recent graduates worshipping at the shrine of Mammon instead of at the shrine of Hippocrates. The Hippocratic oath is no longer administered, and the graduate does not feel its obligations. He does not hesitate to "cut for stone" or perform any other difficult surgical procedure for which he is inadequately trained, provided there is a large fee in sight; but he seldom plays the role of the Good Samaritan. Among the graduates with whom I have come in contact during the last five years I can only think of one that seems to be imbued with the old idea of rendering all the service he can to humanity.

The history of the Medical Department of the University furnishes a good example of what has taken place in the various parts of the United States. The Medical Department was formed by combining the old Medical College of Ohio and the Miami Medical College. To give the University of Cincinnati control over our big charity hospital, which is supported by taxation, it was necessary to amend the city's charter. When this was done the hospital, along with the Medical College, passed completely under the control of the Board of Trustees of the University, as far

as "medical work, teaching and nursing" are concerned. For many years the staff of the hospital had consisted of the best known medical men, surgeons, specialists of the city, who gave their time unsparingly, without money and without price, to the treatment of the patients in the hospital and the teaching of medical students. Now it was thought necessary by the Trustees of the University to not only have so-called full-time men in their laboratories, and to teach pathology and anatomy, but they must also be secured to teach the so-called practical branches. The teaching force has been divided into certain groups. As fast as the finances of the institution would permit, a man has been put at the head of each of these groups, who receives a salary, and is permitted to do private practice. So far each head of a department has been brought to Cincinnati from some other city. Cincinnati physicians frequently ask the question, "How does a professor who is permitted to do private practice differ from a private practitioner who is permitted to be a professor?" So far as the writer knows, the answer has not been forthcoming.

We understand that the latest importation, the head of the Department of Surgery, has not only been permitted to do private practice, but he has also been furnished with a ward in the hospital for that purpose.

In the old days the faculty meeting was a dignified procedure, where the faculty really determined the policies for the institution. Now it is like a Sunday school class, where the teacher does all the talking. The faculty absolutely transacts no business of any importance. Cincinnati, true to her history, is beginning its experiment of all full-time men just as other institutions are beginning to discard it. We are building a tunnel for an entrance for the interurban cars when the interurban roads are mostly in the hands of receivers and their tracks are torn up. We built a speedway when it was too late for such an undertaking to succeed. Now it seems that we are to continue to displace the taxpayer teacher by the journeyman teacher. It does not require a very occult vision to see that in the near future nearly the entire visiting staff of the hospital will be abolished and in its place will be the so-called full-time professors, who will be permitted to do private practice to the fullest extent of their ability. The college and hospital chairs will be all occupied by outside professors and their assistants.

Now as to the future. The scarcity of physicians in the rural communities will at first lead to the use of more patent medicine, more women being delivered without medical supervision, more people trying to treat themselves, more people coming from the rural districts to the quack instead of to the best trained physicians and surgeons, and more people employing the services of the drugless cults. Certainly a consummation not devoutly to be wished. Big business has long felt that doctors should be their slaves, and their representatives in the legislatures are doing everything to make medicine a state function. When

the rural communities recognize their loss of the family doctor, and recognize that they are having to pay entirely too much for their medical attention, they will demand relief from the State, and will probably join with the representatives of big business and force a large part of the profession to work for the State. This will be a sad day for medicine. It will no longer attract the same type of men that has made it great in the past. Much of the doctor's time will be spent in making out reports, and to the true doctor this is a very disagreeable task. Medicine will cease to progress, because there will not then be the incentive for work that has existed in the past.

How can these undesirable results be obviated? By the profession frankly recognizing the needs of the people and supplying them. The best way to do this would be to admit men into the existing medical colleges, or to medical colleges started for the purpose, who have the education equivalent to that of the ordinary high school; to teach them in the most practical manner for three years, at the end of which time they should receive a certificate, but not the degree M.D. A man receiving such a certificate should be eligible for examination by the State Boards of Examiners. The law should be so changed that every man or woman wishing to practice the healing art, whether he has received the regular medical education or not, and whether he wishes to practice scientific medicine or the medicine of some peculiar school or cult, such as chiropractic, be compelled to pass an examination in anatomy, physiology, the principles of surgery. If he intends to do obstetrics he should, of course, be examined in that branch also. It should be made possible for the holder of a certificate from a reputable school, by additional work at a later time in his life, if he so desires, to receive the degree of M.D. Under this arrangement I feel very sure that many young men would return to the rural communities to practice, and that they will be able to give their patrons better service than they are liable to receive if some such a plan is not adopted does not seem to be open to argument. Ambition will cause not a few of them to continue study until they receive the M.D. degree.

There should also be some sort of a degree for the man who, after graduating from a first-class medical college and receiving the degree of M.D., prepares himself by actual work as an assistant for major surgery. There are entirely too many operations done at the present time by the unqualified. One thing seems sure. If the medical profession is saved for the future it must work out its own salvation.—Cincinnati Journal of Medicine, March, 1922.

WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

The fourth annual meeting of this organization will be held, as usual, in the Little Theatre, Kansas City, April 20-21. Dr. Curran Pope, of Louisville, is the president this year, and will give the annual presidential address on Thursday evening.

The program is now being made up, and will be

fully up to the standard of the previous meetings held by this organization, whose watchword is progress. A number of men of national reputation will be present; among those who have responded to the invitation to read papers may be mentioned: Drs. James T. Case, Battle Creek; A. J. Pacini, Washington; T. Howard Plank, Chicago; William L. Clark, Philadelphia; Harry Bowing, Mayo Clinic; A. D. Willmoth, Louisville; J. D. Gibson, Denver, and others. Dr. Virgil C. Kinney of New York, president of the American Electro-Therapeutic Association, and Surgeon-General Cumming of the U. S. Public Health Service, have given us a partial promise to be with us, and all indications point toward a large attendance.

The banquet will be held on Thursday evening, and a number of distinguished speakers will be on the program.

The exhibit hall will, as usual, contain the last word in equipment, and the exhibit alone will be worth a trip to Kansas City.

Dr. Grover's school of Electro-Therapy will hold its sessions, preceding our meeting on the 17, 18 and 19 of April, announcement of which will be found on another page of this issue.

CHARLES WOOD FASSETT,
Secretary.

PRELIMINARY ANNOUNCEMENT

The Western School of Electrotherapy will hold its Fourth Annual Session at the Little Theater, Kansas City, April 17, 18, 19, 1922. Each previous session of the school has been an unqualified success in the dissemination of information in the use of physical modalities in medicine, and this year promises to be better than ever.

Dr. Grover will lecture on the fundamentals of electricity each morning at 10 o'clock. Every day from 2 to 5 o'clock will be devoted to clinical demonstrations. Diseases and conditions amenable to physiotherapy will be briefly described in which the physiological indications for the use of the different modalities and how and when to apply them will be fully explained. Demonstrations will be made on actual cases in so far as clinical material is available. In absence of material each step of treatment technic will be fully explained with demonstration of apparatus.

During the Clinical Sessions time will be given for brief discussion of each demonstration.

Dr. A. J. Pacini, formerly in charge of the X-ray Department of the United States Public Health Service, will be present during the week and lecture on the uses of actinic rays in medicine. He will hold clinics for the demonstration of this important modality in many diseased conditions.

Dr. Frederick H. Morse, ex-president of the American Electrotherapeutic Association and well known authority in direct and sinusoidal currents, will be with us again this year and give clinical demonstrations of these conditions.

Dr. T. Howard Plank, one of the prominent workers

in the American Electrotherapeutic Association and a recognized authority on actinic rays, will be with us again this year and give clinical demonstrations of high-frequency currents in surgery.

The Exhibit Hall will contain the latest equipment and will be well worth a trip to Kansas City.

Program will be ready about March 15.

For program and information, address Dr. Chas. Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

HAVE DOCTORS NOT OVERSHOT THEIR MARK?

THE DOCTOR DILEMMA

When the physicians here assembled ask that every graduate in medicine be required to pass a year as hospital interne before starting in private practice, they are on pretty firm ground. But should they not couple this demand with a lowering of requirements for entering medical school?

Many medical schools now will accept no student who cannot show a college degree, and the movement is to make that requirement universal. This means that the boy who, at the close of high school, decides to enter the medical profession, has seven or eight years, or, with the time as interne, eight or nine years, of unproductive effort still ahead of him before he can even try to earn his living in his chosen profession. What percentage of young men, even when aided by their families, can afford such an outlay; and what kind of fees must they charge to compensate them for the tremendous outlay of time, effort and money?

Doubtless, any man would be a better doctor for having a college education before taking up medicine; but that is not the only question. There is a serious shortage of doctors in this country now, and the promised increase in medical graduates—even if made good—will not overcome that shortage. When requirements are made too high, the supply drops off; and sick folks are driven, perforce, to put themselves in the hands of persons whose training may be less than that of even a poorly qualified doctor.

The sole justification for any lawmaking on medical subjects is to secure competent care for the sick. When requirements are made too severe, this end is defeated. It might pay the learned physicians to take counsel together, and see whether they have not overshot their mark.—*Chicago Journal*, March 7, 1922.

THEY GIVE A VERY PERFUNCTORY SERVICE

A CRISIS IN HEALTH INSURANCE PRACTICE

The widespread financial depression, the general fall in prices, salaries and wages, and the crushing taxation, with the more or less futile attempts of the government to economize, have, as might have been expected, led to the raising of the question of a reduction of the capitation fee of panel physicians.

Before the war, this fee was nearly \$2. In consequence of the increased cost of living, it was raised after the war to \$2.75. Now the minister of health, Sir Alfred Mond, proposes to reduce it to \$2.25, an intermediate position between the old and the new fee. He would thus effect a saving of \$10,000,000 a year. The threatened reduction has been received with marked disapproval by physicians, who declare that the cost of living has declined very little in the interval since the increase was granted and that the fee now paid is insufficient for the work done, especially as the ministry of health has again inaugurated a troublesome system of record cards which consumes much time.

On the other hand, severe criticisms of the panel physicians have come from the leaders of the friendly societies, who declare that they often give a very perfunctory service. There is also the suggestion, unofficial as yet, that the panel system should be abolished and, instead of the annual capitation fee, payment made for each service rendered. In order to avoid, on the one hand, the abuse of patients making too much of trivial symptoms and, on the other hand, of physicians running up bills by over-attendance, it is suggested that the patient should pay one-third of the fee for each service. Further, the right of every one to choose one's physician at any time, which is largely lost under the panel system, would be restored. The system would, of course, be based on an agreed tariff. It has been calculated that the minister of health would save as much as \$20,000,000 by adopting this system.

Some adjustment in the scale of contribution by the patients would be necessary in view of the fact that they would have partly to pay for medical attendance. The "something for nothing" (putting aside the small annual contribution paid by the patient as an insurance against illness) of the present system is one of its greatest blots. It leads people to take advice and medicine (the working man or woman is never satisfied unless he gets medicine whether he is ill or only thinks he is ill) under conditions that they never would if they had to pay. The time spent on such trivial cases often means want of time to examine thoroughly serious ones.—*Jour. A. M. A.*, London Letter.

NEW YORK STATE RECORDS ITS LOWEST DEATH RATE

The death rate of New York state for the year 1921 reached the new low level of 12.2 per thousand population, according to the statistics of the division of vital statistics of the state health department. For the year 1914 the rate was 14.7, and for 1920 it was 13.8. In terms of lives saved, the rate for 1921 means that approximately 16,000 more residents of the state are now living than would be the case if the death rate had not been reduced as indicated. New York City, with a death rate of 11.2, still retains its lead over the remainder of the state. In

the up-state area, it is also of interest to note that the 1921 rate in cities was 12.6, as against 13.5 for the rural area.

DEATH RATE IS DOWN

CENSUS BUREAU STATISTICS

CANCER, INFLUENZA AND PUERPERAL DISEASES SHOW AN INCREASE IN THE TEN-YEAR PERIOD

Washington, D. C., Feb. 21.—The death rate in the United States decreased to 1,306 per 100,000 population in 1920 from 1,496 per 100,000 in 1910, according to figures announced by the census bureau.

All age groups showed a decline in death rate, but the most pronounced decrease was recorded in the figures covering infant mortality under 1 year of age, the 1920 rate being 9,660 per 100,000, compared with 13,083 per 100,000 in 1910, a decline of about 26 per cent.

The rate for the group above 75 years of age decreased from 14,360 to 13,490 per 100,000, approximately 6 per cent., while that for the 45 to 75 age group decreased from 2,581 to 2,280 per 100,000, or about 12 per cent.

REDUCED PHTHISIS RATE

The decrease in all adult groups was attributed largely to the reduced rates from tuberculosis, typhoid fever and Bright's disease.

The rate for tuberculosis showed a decrease in the ten-year period from 160 to 114 per 100,000; for typhoid fever, 24 to 8 per 100,000, and Bright's disease and acute nephritis 99 to 89.

The death rate from accidents of all kinds decreased from 84 to 71.

CANCER ON INCREASE

Diseases showing a serious increase in death rate, on the other hand, were cancer, the rate for which increased from 76 to 83; influenza, 14 to 71, and puerperal causes, 15 to 19.

The rate for organic diseases of the heart showed practically no change from the 1910 rate of 141.5.

WE'RE LIVING LONGER

The death rate in every age group was lower in 1920 than in 1910, according to the report of the department of commerce, through the Bureau of Census, made public February 21. The most pronounced change appearing in the rate was for infants under one year of age, which declined from 13,084 per 100,000 in 1910 to 9,660 per 100,000 in 1920, a decline of about 26 per cent. A decrease of about 6 per cent. was shown in the death rate for persons more than 75 years old, being 13,490 per 100,000 in 1920, as against 14,360 in 1910. In the latter year, the death rate for infants was almost as high as it was for persons above 75 years of age, but in 1920 the infantile death rate was only about one-fourth as great as the death rate in old age. Particularly noteworthy is the decrease from 2,581 to 2,280 per 100,000 population in the age group 45 to 74 years, a decrease of 12 per cent., due largely

to much lower rates from tuberculosis, acute nephritis and Bright's disease, organic diseases of the heart, accident and typhoid fever. Deaths from tuberculosis shows a decrease in the decade from 160 per 100,000 population to 114. The rate from acute nephritis and Bright's disease has decreased from 99 to 89, that from accidents from 84 to 71 and the rate from typhoid fever from 24 to 8. On the other hand, increases were shown in the rates of death from influenza, cancer and puerperal causes.

DEATH RATE FROM ALCOHOL INCREASED 50 PER CENT. IN 1921

METROPOLITAN'S EXPERIENCE

ALCOHOLIC MORTALITY INCREASED 50 PER CENT. LAST YEAR, BUT OTHERWISE THE RECORD IS EXCELLENT

New York, Feb. 21.—Deaths from alcoholism increased 50 per cent. in 1921, against 1920, in the experience of the Metropolitan Life, which announces that in other respects 1921 had the lowest death rate ever recorded in the United States and Canada.

The rate was 8.54 per thousand lives, a rate indicated by statistics based on the experience of nearly 14,000,000 industrial policyholders. This is lower by 13.7 per cent. than the 1920 death rate, and lower by 31.9 per cent. than the death rate in 1911.

The death rate has been cut chiefly because fewer victims were being claimed by tuberculosis, pneumonia, influenza, Bright's disease and industrial accidents.

"In the period of eleven years," the company says, "mortality from tuberculosis has been cut almost in half. This in itself is an unparalleled accomplishment in the history of public health. But more amazing still is the fact that the decline is continuing at an increasing rate from year to year. Despite the fact that it was marked by a business depression, unemployment and other consequences, 1921 showed a greater decline in the tuberculosis death rate than any year on record. We have no better evidence of the effectiveness of the public health movement for the control of tuberculosis.

"The lower death rates for organic heart disease and for Bright's disease are additional evidences that the public health work of the last twenty years has been effective in reducing the incidence of the infectious diseases and local infections.

EFFECT OF AUTOMOBILES

"One cause of death which resulted in greater ravages than ever in 1921 is said to have been the automobile.

"For ten successive years," the bulletin continues, "the death rate from this cause has registered an increase. The 1921 death rate is more than five times that recorded for 1911; it is four times as high as the 1912 figure; it is more than twice as high as the death rate recorded for 1915, and 61 per cent. higher than the figure for the year 1916. The control of the rising death rate from this

cause is one of the unsolved problems of police and accident prevention work in American cities. There is small consolation in the fact that the number of automobiles has also increased, and that, in consequence, there are fewer deaths in automobile accidents per automobile in operation than there were five or ten years ago. The outstanding fact is that, whether being killed by the first or fifth or tenth automobile, the number of deaths caused by motor vehicles and the automobile death rate continue to grow year by year.

DIPHThERIA DEATH RATE

"The most conspicuous bad spot in the record of the year is the increased death rate for diphtheria. The mortality from this disease was higher than in any year since 1917. This is all the more deplorable because the means for the suppression of case incidence and case fatality should be known to every health officer and every physician in the United States and Canada.

"The scarlet fever rate was higher than for any year since 1914."

A FORM OF INFLUENZA RESEMBLING SCARLET FEVER

The question of the similarity in certain characteristics of influenza to scarlet fever was discussed at a recent meeting of the Manchester Medical Society when Dr. St. Clair McClure, assistant to the Manchester Medical Officer of Health, said that the diagnosis of scarlet fever was becoming increasingly difficult. He pointed out that there were many cases in which the difference between mild scarlet fever and mild influenza was not clear. At the same meeting the wisdom of sending these mild cases to the fever hospital was questioned. Dr. R. W. Marsden spoke of the necessity of good evidence that the patient was suffering from scarlet fever before ordering to hospital, and he emphasized the necessity of nursing and isolating at home all cases which could be so dealt with. Dr. McClure agreed that if isolation accommodation was practicable in the home and the parents could be depended upon, it was preferable to keep the patients at home. But the figures of Manchester showed that there was a definite advantage to individual households in the removal of cases to hospital. The greater the promptitude in removing the patient the less would infection spread among family contacts. This was shown by an investigation carried out over a series of years.—*Medical Record, London Letter, March 18, 1922.*

DUBUQUE COUNTY MEDICAL SOCIETY ASSUMES CARE OF POOR

The Dubuque County (Iowa) Medical Society and the County Board of Supervisors have entered into an agreement whereby the medical men of Dubuque County agree to render aid to the indigent poor of the county for a year at the stipulated price of \$3,250. The doctors have agreed to each serve the

county for a period of ten days—during which times they attend all persons who are county charges free of cost to the individual. This service only applies to the indigent poor. The specialists of the city are allotted specific times when they are subject to call for the care of indigent poor. The money received in payment for this service does not go to the individual physician. A part of it is used by the Society to purchase equipment to make more interesting their monthly meetings, and to pay the expenses of experts who may be brought from a distance to address the society.

WE CONGRATULATE DR. TURCK

Dr. Raymond C. Turck, Health Officer for the State of Florida. In announcing the establishment of a public radium clinic for the treatment of cancer, stated: "The patient applying for free treatment must be financially unable to pay for any medical services which may be required. Patients who are in moderate circumstances and yet able to make some payment for medical services are NOT eligible for this treatment. It is not the intention of the State Board of Health to enter into competition with private physicians in the treatment of disease."

A healthy, refreshing, stimulating, constructively helpful change from the tendency of the times, which seems to aim at organizing State agencies to provide free medical treatment for everything and everybody under the sun, regardless of whether one is financially able to pay or not. Evidently Dr. Turck has escaped inoculation by the Soviet Government bug.

A NEW LOCAL ANESTHETIC

From time to time new anesthetics to take the place of cocaine have been proposed, and to some extent used, but without utterly supplanting the older and rather dangerous drug. Now, however, the surgeon has a substitute that is a decided improvement. The new local anesthetic is called Butyn (pronounced **Bute-in**, with the accent on the first syllable). It is the discovery of Professors Roger Adams and Oliver Kamn of the University of Illinois and Dr. E. H. Volwiler of The Abbott Laboratories, Chicago.

The anesthetic has been passed by the Council on Pharmacy and Chemistry, of The American Medical Association. In his report, Dr. A. E. Bulson, Jr., for the Committee on Local Anesthesia, Section of Ophthalmology, said that it acts more rapidly than cocaine and its action is more prolonged. Less is required, and in the quantity necessary it is less toxic than cocaine. It has other advantages which make it highly useful, especially for eye work. A solution can be boiled without impairing its efficiency.

The Abbott Laboratories are supplying Butyn in tablets (with and without epinephrin) and 2 per cent solutions, which may be had without narcotic blanks.

MEDICAL MEN IN PARLIAMENT

It is curious, to some extent, to observe the ignorance of the members of the medical profession in this country as to its representation in Parliament and also the proposed contempt the average medical man has for politics. He believes, if he thinks of the matter at all, that politics will effect nothing in his interests, that indeed they are antagonistic to his concerns, as, in fact, they usually seem to be. However, there is a medical group in the British House of Commons, small though it be and comparatively negligible as its influence is. The existing British Parliament contains eleven medical members whose names and politics are as follows: Dr. Addison, late Minister of Health, Liberal; Sir William Watson Cheyne, Unionist; Captain W. E. Elliott, Unionist; Dr. A. C. Farquarson, Liberal; Lieut.-Colonel F. E. Freemantle, Unionist; Dr. B. F. P. McDonald, Unionist; Dr. J. E. Molson, Unionist; Mr. Donald Murray, Liberal; Dr. Nathan Raw, Unionist; Sir William Whitla, Unionist; Sir Robert Woods, Independent. Although the medical party is almost impotent politically, it has formed the Medical Committee of the House of Commons which has rendered considerable service to the cause of public health. Some of the members of the medical party have shown themselves remarkably energetic as well as possessed of marked ability as speakers. Perhaps Captain Elliott may be termed the orator of the party, although Dr. Nathan Raw, Lieut.-Colonel Freemantle, and Dr. Murray have distinguished themselves in this direction on several occasions. The Parliamentary Committee is working in conjunction with the Federation of Medical and Allied Societies through its secretary, who has a seat on the Medical Council. Moreover, all the medical members of Parliament, with one exception, also are individually members of the federation. The federation serves the committee in the House and outside the House. It does this by supporting all medical candidates for Parliament by canvassing all members of all the professions allied with the medical profession, and by providing the committee with the views of the medical and kindred societies on current health matters. But, of course, as said before, the number of medical men in Parliament is so small as to carry little if any weight, and it would be in the best interests of the profession and of the health of the country if there were enough medical men and women in Parliament, not only to represent adequately the opinion of the profession as regards health matters, but to look after and, if possible, safeguard their own interests. Unfortunately, the calls of medical practice are so exacting that there are not many who have the leisure and what is more to the point, the means to contest a parliamentary election, or if elected to support themselves. Unfortunately, too, in any event, the number of men in Parliament would not be sufficient to make their influence felt as it should be felt. Politicians,

many of whom may be termed professional politicians, possess the power, and the medical profession must either sing to their tune or go unheeded. In no countries of the world is the medical profession so politically powerless as in this country and America.—Medical Record London Letter.

ANTIVIVISECTION BILL IN COLORADO

An Act to Prohibit Injurious, Dangerous or Painful Experimental Operations or Administrations Upon Human Beings or Dumb Animals Except to Relieve or Cure Them; Making Exceptions of Persons Consenting to Such Experiments and Providing Penalties for Violations of the Act.	YES	
	NO	

Next November the Colorado voter will read the foregoing caption on his ballot and will vote "yes" or "no" on his death warrant. The ballot title makes no mention of any undertaking arrangements, but appeals to the spirit of mercy. For this reason the unwary voter will be at a disadvantage.

The bill is the work of the antivivisectionists. Few physicians are aware of the propaganda conducted by these people, for they concentrate their fire on one or two localities; hence other communities are oblivious till they themselves are attacked. There are ten societies of these fanatics in the United States, and one of the newest is the Society for the Abolition of Vivisection, with "headquarters" at Postoffice Box 424, Denver, Colo.

What is this Denver society? It is a little bureau that is republishing the literature of the New York Anti-Vivisection Society and other organizations. And the New York Anti-Vivisection Society? It is an organization that makes a pretense of mercy and human kindness in order that it may wage propaganda against the medical profession. One of the society's pamphlets is written by Eugene Christian, president of the National Association of Drugless Practitioners, and is entitled "Shall We Let the Doctors Enslave Us?" The article is a vilification of the "Drug Doctors." The other pamphlets of the New York society are equally amazing, for many of them have no reference to vivisection. Herewith a few of the titles: "Complete Failure of Medicine in the World War", "Dangers in the Use of Vaccines and Serums", "The Folly and Failure of Serums and Vaccines", "The Utter Failure of the Old School Serum-Vaccine Method Versus the Glorious Record of Drugless Doctors in the Influenza Epidemic", "What Would Have Happened Without Osteopathy?", "What Would Have Happened Without Chiropractic?"

It is clear that the parent society of New York is a publicity bureau for the medical underworld. Its

purpose is to demolish scientific medicine and supplant it with a system of two-dollar rubs.

The aim of the Colorado bill is to abolish animal experiments and administrations *with or without* anesthetics. With the passage of such a bill the advance of scientific medicine would cease. Nothing more would be done to combat insanity, and the Psychopathic Hospital—which the people have recently voted—would be useless. There would be no more research in cancer and tuberculosis, and our highest hope would be to die painlessly of these diseases. Yet this is not all, for medicine would not merely cease to advance; it would regress. It would be illegal to manufacture smallpox vaccine or diphtheria antitoxin, and we would make coffins instead.

In contemplating such a situation one naturally feels that the thing is impossible. It is true that the bill would not pass if the electorate were informed of the issue, but it will be misinformed by a propaganda of unbelievable deceit and malice. The Denver Society for the Abolition of Vivisection issues a pamphlet entitled "Black Art Vivisection", and this pamphlet treats of the following topics: "Japanese Vivisections 400 Charity Patients in New York"; "Kill Girl at Free Clinic"; "Poor Children Blinded by Vivisection"; "Human Beings Must Be Vivisected", etc.

This campaign of frenzied falsehood is already in progress, and it can be offset only by an educational campaign that will appraise people of the achievements of scientific medicine. They must know that smallpox, typhoid fever, plague, yellow fever, hydrophobia, diphtheria and countless other diseases have been conquered, and that scientific medicine has added ten years to the average human life in the past century. Farmers must know of the wonderful achievements in the conquest of foot and mouth disease, lumpy jaw, rinderpest, Texas fever, sheep scab, splenic fever, pleuro-pneumonia, glanders, hog cholera, etc. The citizen must learn that animal experiment prevents diseases in domestic animals that would cost a billion dollars a year; and that such losses, if incurred, would lead to famine.

The campaign of education must be no casual thing, for otherwise the voter will write "yes" on his death warrant. The responsibility for this campaign of enlightenment should not rightly fall upon the doctor, for it is the welfare of the whole community that is at stake. But unfortunately the doctor is burdened with many public duties, and this is inevitably one of them.

It remains to point out that the antivivisectionists have already taken a grossly unfair advantage of the voter, and that this abuse must be remedied. The citizen is required to vote for or against "An Act to Prohibit Injurious, Dangerous or Painful Experimental Operations or Administrations Upon Human Beings or Dumb Animals Except to Relieve or Cure Them." This ballot title is prejudiced and bitter. The title of the proposed law, as approved by the secretary of state, is "An Act Concerning Experimental Operations or Administrations Upon Human Beings or Dumb Animals." In justice to everybody concerned,

the ballot title should be no more prejudiced than the title of the act itself. C. S. B.

COPY OF THE ANTIVIVISECTION BILL

FOR THE ENLIGHTENMENT OF THE PROFESSION, THE
BILL WHICH IT IS PROPOSED TO INITIATE FOR
POPULAR VOTE IN THE FALL IS HERE

REPRODUCED:

AN ACT CONCERNING EXPERIMENTAL OPERATIONS OR ADMINISTRATIONS UPON HUMAN BEINGS OR
DUMB ANIMALS

Be It Enacted by the People of the State of Colorado:

Section 1. It shall be unlawful to make any injurious or dangerous or painful experiment or experimental operation or administration or any dangerous or injurious or painful exhibitory or illustrative operation or administration upon or to any human being or any dumb animal either with or without the use of anaesthetics except for the purpose of relieving or curing such person or dumb animal: Provided, however, that a person over the age of sixteen years may consent to such experiment, operation or administration upon himself or herself and in the case of persons under the age of sixteen years the parents or those standing in the parental relation may consent thereto and in cases of such consent the provisions of this Act shall not apply. For the purposes of this Act the word injurious, dangerous and painful shall be held to include any experiment, operation or administration which may reasonably be expected to do injury to or endanger or cause pain or suffering to or in any part of any organ of the person or dumb animal so experimented or operated upon or administered to either at or during the time of such experiment, operation or administration or as an after effect or result thereof.

Section 2. Any person violating any of the provisions of this Act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than one thousand dollars or by imprisonment in the county jail for not less than ten days nor more than six months or by both such fine and imprisonment in the discretion of the court. In case any defendant after conviction shall again violate any of the provisions of this Act for such second offense he shall upon conviction be punished by a fine or not less than two hundred and fifty dollars nor more than one thousand dollars or by imprisonment in the county jail for not less than ninety days nor more than one year, or by both such fine and imprisonment in the discretion of the court.

(The Secretary of State, Attorney General and Reporter of the Supreme Court do hereby designate and fix as the ballot title and submission clause to the proposed initiated measure herein the following:)*

FACTS TO TELL ABOUT VIVISECTION

The people of Colorado will probably be confronted

at the fall election with an initiated measure for the prevention of animal experimentation. This will strike at the foundation of research work in Colorado and if carried would prevent animal experimentation at the new medical school. Physicians do not need to be convinced or even reminded of the benefit to medicine from the use of animals in experimental work, but they do need to have it forcibly impressed upon them that if they take no cognizance of this movement the public may believe the untruthful statements and extravagant "illustrations" in the propaganda already prepared and probably soon to be distributed by the sponsors of the bill—a bill which is said even to emanate from a bureau at the State Capitol!

Aside from any organized effort which the profession might make it is possible for physicians in their daily contacts to give the public much information as to the truth about vivisection. For their benefit the following list of accomplishments through animal experimentation as originally compiled by our Nestor of Surgery, W. W. Keen, is here reproduced:

THE ACHIEVEMENTS OF THE FRIENDS OF ANIMAL
EXPERIMENTATION†

1. They have discovered and developed the antiseptic method and so have made possible all the wonderful results of modern surgery.

2. They have made possible practically all modern abdominal surgery, including operations on the stomach, intestines, appendix, liver, gall-stones, pancreas, spleen, kidneys, etc.

3. They have made possible all the modern surgery of the brain.

4. They have recently made possibly a new surgery of the chest, including the surgery of the heart, lungs, aorta, esophagus, etc.

5. They have almost entirely abolished lockjaw after operations and even after accidents.

6. They have reduced the death rate after compound fractures from two out of three, i. e., sixty-six in a hundred, to less than one in a hundred.

7. They have reduced the death rate of ovariectomy from two out of three, or sixty-six in a hundred, to two or three out of a hundred.

8. They have made the death rate after operations like hernia, amputation of the breast, and of most tumors a negligible factor.

9. They have abolished yellow fever—a wonderful triumph.

10. They have enormously diminished the ravages of the deadly malaria, and its abolition is only a matter of time.

11. They have reduced the death rate of hydrophobia from twelve to fourteen per cent of persons bitten to 0.77 per cent.

12. They have devised a method of direct transfusion of blood which has already saved very many lives.

13. They have cut down the death rate in diphtheria all over the civilized world. In nineteen European and American cities it has fallen from 79.9 deaths per hundred thousand of population in 1894, when the antitoxin treatment was begun, to nineteen deaths per hundred thousand in 1905—less than one-quarter of its death rate before the introduction of the antitoxin.

14. They have reduced the mortality of the epidemic form of cerebrospinal meningitis from seventy-five or even ninety-odd per cent to twenty per cent and less.

15. They have made operating for goiter almost perfectly safe.

16. They have assisted in cutting down the death rate of tuberculosis by from thirty to fifty per cent, for Koch's discovery of the tubercle bacillus is the cornerstone of all our modern sanitary achievements.

17. In the British Army and Navy they have abolished Malta fever, which, in 1905 before their researches, attacked nearly thirteen hundred soldiers and sailors. In 1907 there were in the army only eleven cases; in 1908, five cases; in 1909, one case.

18. They have almost abolished childbed fever, the chief former peril of maternity, and have reduced its mortality from five or ten up even to fifty-seven in every hundred mothers to one in twelve hundred and fifty mothers.

19. They have very recently discovered a remedy which bids fair to protect innocent wives and unborn children, besides many others in the community at large from the horrible curse of syphilis.

20. They have discovered a vaccine against typhoid fever, which among soldiers in camps has totally abolished typhoid fever, as President Taft has so recently and so convincingly stated. The improved sanitation which has helped to do this is itself largely the result of bacteriologic experimentation.

21. They are gradually nearing the discovery of the cause, and then we hope of the cure, of those dreadful scourges of humanity, cancer, infantile paralysis and other children's diseases.

Who that loves his fellow creatures would dare to stay the hands of the men who may lift the curse of infantile paralysis, scarlet fever, and measles from our children and of cancer from the whole race? If there be such cruel creatures, enemies of our children and of humanity, let them stand up and be counted.

22. As Sir Frederick Treves has stated, it has been by experiments on animals that our knowledge of the pathology, methods of transmission, and the means of treatment of the fatal "sleeping sickness" of Africa has been obtained and is being increased.

23. They have enormously benefited animals by discovering the causes and, in many cases, the means of preventing tuberculosis, rinderpest, anthrax, glanders, hog cholera, chicken cholera, lumpy jaw and other diseases of animals, some of which also attack man. If the suffering dumb creatures could but speak, they, too, would pray that this good work should still continue unhindered.

In April, 1914, when Mr. Rockefeller gave \$1,000,-

*Ballot title reproduced in preceding editorial.—Ed.

†From Dr. W. W. Keen's "Animal Experimentation and Medical Progress", 1914.

000 to extend the work of the Rockefeller Institute, to the study of animal diseases in a laboratory to be established in New Jersey, the anti-vivisectionists persuaded the Governor to veto the bill authorizing this eminently humane work!

As opposed to the above extraordinary list of accomplishments, compare the "achievements" of the anti-vivisectionists again quoted from Dr. Keen's work:

THE ACHIEVEMENTS OF THE FOES OF ANIMAL EXPERIMENTATION

1. Not a single life has been saved by their efforts.
2. Not a single beneficent discovery has been made by them.
3. Not a single disease has been abated or abolished by them either in animals or man.
4. All that they have done is to resist progress—to spend \$500,000 in thirty years in Great Britain alone, and very large amounts of money in the United States—and to conduct a campaign of abuse and gross misrepresentation.
5. They apparently care little or nothing for the continued suffering and death of human beings, the grief and not seldom the ensuing poverty of their families, provided that twenty-six out of every thousand dogs and cats, monkeys, and guinea pigs, mice, and frogs experimented on shall escape some physical suffering.
6. They insist, therefore, that all experimental research on animals shall stop and—astounding cruelty—that thousands of human beings shall continue year after year to suffer and to die.

VIVISECTION BRIEFS

If the scientists who experiment on animals were the cruel, cold blooded butchers pictured by the anti-vivisectionists, even so the animals used by them would be given the greatest possible comfort, the greatest possible relief from pain and shock and the greatest possible aftercare because the success of the experiment would require that very thing.

* * *

Every one who has had his life saved by an abdominal operation should realize that the operation would have been impossible and he would be dead if animal experimentation had not developed aseptic surgery.

* * *

The cause of cancer will one day be found and its cure be possible through animal experimentation.

* * *

The diagnosis of tuberculosis is often made and the patient's life saved through the sacrifice of a guinea pig, when it could not be done by any other method.

* * *

The presence of syphilis in patients is now discov-

ered in ten cases where formerly it was discovered in one and overlooked in nine. The diagnosis rests on animal experimentation.

* * *

One horse furnishes antitoxin which saves hundreds of human lives—and the horse continues to live with more comfort and better care than many humans about whom anti-vivisectionists do not worry.—Colorado Medicine.

PATERNALISM IN CONGRESS

Among the many theories of government entertained by the present congress is that which believes in governing as much as possible, helping individuals here and there, spoon-feeding interests and institutions, looking after the kitchen; in a word, paternalism.

The maternity bill which has just been jammed through the house of representatives is a bit of legislation that must prove mischievous as a precedent in a government like that of the United States. More and more the American people are leaning upon the general and state governments for support, and this bill shows it. It proposes that the nation shall give prenatal and postnatal care in all maternity cases, without exception, in those states passing similar laws and granting equal financial aid. A federal board and a state board shall be created to administer the measure, with all the necessary police power required. Why?

Oh, Germany has such a law, and it would be so nice for poor folks. Yes, Germany has had such a law for forty years, for she has been in the baby business, as the world discovered since. Bismarck said when advocating the law: "It will bind the working classes to the state." And it did, and it will do the same here, where the state already has burdens enough.

It is conceded that help in maternity cases would do good here and there, but in free and comfortable America such instances ought to be and are rare. If the function of government has any bearing on such matters it should encourage independence rather than dependence on the public. That is the American tradition and ideal in government as it is in individual affairs. What is done for others who could and should help themselves, tends to weaken and pauperize them.

Economists and publicists on all sides are drawing attention to the enormous increase in the public service of the United States in recent years. An army of municipal, state and federal employes is quartered on the rest of the people and is fast growing everywhere, a mischievous distortion of true American notions of what governments are for.

It is worthy of note that Miss Alice Robertson, the only woman in congress, so far believed that the rearing of children should be a family affair the she opposed the maternity bill at every step and stage in its progress.—Chicago Journal.

Public Health

BIRTH CERTIFICATES WRONGLY SENT TO COUNTY CLERKS.

Because recent investigations have brought to light the fact that office girls in the employ of a number of physicians have forwarded original birth certificates to the local county clerk instead of to the local registrar and that consequently these physicians have apparently failed to report births because the original certificates never found their way to Springfield, the State Department of Public Health wishes to bring this matter to the attention of all practicing physicians in order that office girls and others may be properly instructed and confusion and difficulties obviated.

1921 DEATH RATE LOW

Provisional figures recently released by the State Department of Public Health give Illinois a death rate of 11 flat per 1,000 for 1921. The rate is the lowest on record and represents a drop of a point and a half under that for 1920. Communicable disease incidence was also relatively light, 176,740 cases having been reported as compared with 347,974 for 1920.

POLIOMYELITIS CASES REPORTED

Quite a number of cases of poliomyelitis continue to be reported to the State Department of Public Health, although this is the off-season for that disease. Cases have been recently reported from Logan, Whiteside, Scott, Livingston, Lee, Marion, Coles and Sangamon counties. For the most part these counties are points of foci where infantile paralysis has been more or less epidemic since 1916, at times reaching alarming proportions. It is felt that these sporadic cases during the winter months should serve to keep physicians on the alert for the disease.

SCHICK TEST TO BE GIVEN AT ST. CHARLES SCHOOL

Arrangements have been completed by the Division of Communicable Diseases to Schick test all boys in the St. Charles State School for Boys. Those who show a positive reaction will be immunized against diphtheria by the use of toxin-antitoxin. Similar action throughout the public and private schools of the state would be a long step in the direction of eliminating diphtheria in Illinois.

SMALLPOX LIGHT—INFLUENZA AND PNEUMONIA HEAVY

During February of this year only 342 cases of smallpox were reported in the state as compared with 1,659 for the same month a year ago. The figures for whooping cough for the same periods respectively were 405 and 1,327. Influenza jumped from 424 to 6,974 while the pneumonia incidence

was practically doubled, 2,529 cases being reported for February of this year against a total of 1,222 for the same month in 1921. Little variation is noted in reports of other communicable diseases.

Correspondence

A CORRECTION

Chicago, March 15, 1922.

To the Editor: I regret that an opportunity was not afforded me to revise the stenographer's transcript of the remarks I made on February 2, 1922, at the meeting of the North Side Branch of the Chicago Medical Society, which were printed in the March number of the ILLINOIS MEDICAL JOURNAL. Among the other errors which appear in my remarks as published are two important ones which must not go uncorrected. In the second paragraph from the bottom of page 169 I am made to say, "My namesake, John S. Billings, and William Pepper came to actual blows." What I really said was that I had witnessed a quarrel in a general meetings of the A. M. A. which finally came to actual personal violence, during which John S. Billings and William Pepper were pulled from the stage by others. The statement as published is a reflection upon two splendid men who were warm friends to the end of their lives. On page 170, third paragraph from the top, I am made to say, "As Dr. Craig has pointed out, the power of the Association in the House of Delegates is very restricted." What I really said was, "the power of the Board of Trustees is very restricted and the House of Delegates is the only organization which has the power and right to formulate policies."

In connection with the publication of unrevised extemporaneous remarks, I desire to call attention to another article which appears on page 222 of the March number of the JOURNAL which is signed by the Legislative Committee of the Wayne County Society of Michigan. Here I am pointed out, as I have been on other occasions, as advocating Compulsory Health Insurance, as evidenced by the publication in the American Labor Legislation Review of alleged statements made by me at a meeting of the American Association of Labor Legislation at Columbus, Ohio, in December, 1916. The statements I made at that meeting were published without giving me an opportunity to revise or to correct the stenographic transcript. Unfortunately, I never saw

the published statement referred to until June, 1921. Again I repudiate the statement as published, or any other one, that I have ever been a proponent of Compulsory Health Insurance.

The last sentence of the first paragraph of this same article in the JOURNAL is also a false statement by inference. I have never advocated the organization of community health centers wholly paid for by the state and manned by physicians paid by the state. For what I have advocated, and do advocate, see the Journal A. M. A. 1921, Vol. 76, page 149, and the Canadian Medical Association Journal, 1921, September, page 1. The effect upon the minds of others of the publication of statements which are false, wholly or in part, is unimportant so far as the individual is concerned, but the possible derogatory effect upon the important principles and policies of a great medical organization should not go uncorrected.

Very truly yours,

FRANK BILLINGS.

Note.—The proceedings of the North Side Branch of The Chicago Medical Society as published in our March issue were taken down by a competent medical stenographer and therefore presumed to be correct. Two of the speakers of the evening claim the meaning of some of their remarks was misinterpreted. We publish their correction in this issue.

A CORRECTION

March 17, 1922.

To the Editor: In the issue of March, 1922, I am misquoted, and I would ask you to kindly correct same. The sentence on page 172, beginning "The only trouble has been, etc." should end "that they have not kept in touch with us," etc. In the next column on the same page near the bottom you will kindly correct the sentence to read as follows: "You can get a good bed in most of these hospitals for \$2.00 or \$2.50 per day." You have left out after this sentence "*and it costs them between \$5.00 and \$7.00 per day.*" You do not have to live in Chicago either. *The deficit on these beds is paid from funds that were collected for the worthy poor.* In the sentence "At the Presbyterian Hospital I dare say the minimum price per bed and not cost per bed, and that sentence should end "is \$3.50 per day, about 65% of cost." On page 173 "I claim the private hospital

Is deserving of encouragement" leaving out the word *not*.

Trusting you will correct this so that I will not be misunderstood, I am,

Sincerely yours,

BENJ. H. BREAKSTONE, M. D.,

P. S.—Since writing the above I received a very interesting letter from a liability insurance company of Boston, Mass., who put all their patients in eleemosynary hospitals and are trying to force private hospitals to take their patients at the same rate. Now surely this insurance corporation is not entitled to any charity, as according to their policies they are bound to pay the hospital fees. Yet, their fees are based on a minimum priced bed, which means that it is only about 25% of cost, and therefore they are getting 75% out of the charity funds which should rightfully go to patients who are poor and cannot pay anything. Is it proper then that these corporations shall use charity funds to meet their obligations? It will also be interesting to note in this connection that the physicians or surgeons treating these patients for the insurance company who are on the staffs of these eleemosynary hospitals get nothing for their services, although the insurance contract binds itself to pay both physician and hospital. This enables the corporation to induce the employes insured under the industrial insurance act to do away with paying the general practitioner, and will ultimately do away with whatever little practice the physician has.

DO YOU APPROVE OF HOSPITALS REFUSING TO ACCEPT YOUR PATIENTS UNLESS YOU HAPPEN TO BE ON THE STAFF?

March 13, 1922.

Dear Doctor: May we ask for your views regarding certain phases of hospital management in Chicago, and incidentally refer you to an editorial on Page 656, *Journal A. M. A.*, March 4, 1922?

Do you approve of accepting wealthy patients in a hospital on a charity basis, where they neither seek charity nor would accept it knowingly? Do you believe in meeting the deficit by "drives," thereby forcing people of moderate means to pay for hospital accommodations received by well-to-do patients? We may deplore social conditions where the poor and improvident must seek charity from the prosperous: but on what theory do

hospitals reverse the order by giving to the prosperous of the funds collected from many who can ill afford to pay?

Do you approve of hospitals refusing to accept your patients unless you happen to be on the staff? Are you comfortable in your practice at hospitals, often under gratuitous supervision of a Board of Directors? Shall the members of your highly honored professions descend to such a low estate as to submit to surveillance and censorship by those whom often accident and not merit gives authority? Can you afford to have hospital employes treat you and your patients with perceptible indifference?

Would you not prefer to have sole, free and absolute charge of your patient, for whose care you and you only are responsible. Would you consider it worth your while to have a voice in the conduct of the hospital, to have your orders, your patients and your directions treated with deference, in keeping with your dignity as a reputable and skillful practitioner, to be unhampered by censorship or interference?

Are you in favor of discouraging corporations, insurance companies and political groups entering into the practice of medicine?

Would you be kind enough to give an expression of your opinion on the above, on enclosed post-card, thereby assuming no obligation whatsoever, and with assurance it will be regarded with utmost confidence?

Thanking you for a prompt response, I remain,

Yours respectfully,

COMMITTEE.

Suite 1517-1538, 127 N. Dearborn St.

A COURT OF DECENCY FOR PHYSICIANS

February 20, 1922.

To the Editor: Among the activities of various medical associations to stimulate legislative enactments favorable to our interests and to block legislation detrimental to them, one important form of propaganda is being omitted. Medicine, like any other public utility dependent on the good will of the consumer for the franchise regulations that give it life, should have some mechanism to take care of complaints of customers dissatisfied with the service. In every other profession, the law, the ministry, the army and the navy, and in academic and legislative bodies there is what might be called a court of decency to

which the layman can appeal for information or enlightenment in regard to acts of any member of these professions that he may consider wrong; a committee that has the power to disbar from membership in these associations on account of numerous offenses, among them so subtle a one as "conduct unbecoming a gentleman."

There is need in our profession of a similar court before which the public can carry complaints for maltreatment, real or imagined, medical or financial, with the assurance that members of our profession who may have offended in their relations with the public will, if found culpable, become subject to reprimand and censure by this body of their peers, that redress will be offered, a penalty be imposed and, in extreme cases, a license be revoked or disbarment instituted. Such a court could be national, or limited to each state or even to smaller communities. Our boards of censors or committees on ethical relations do not answer this purpose as far as the layman is concerned; they settle disagreements, among physicians and are merely a loose league of medical men with a mandate over professional conduct.

As things are drifting today, health centers, medical groups, superspecialists, etc., are driving a cold wedge between physician and patient. The sick person coming to his physician in pain or suffering, frightened and in confidence, misses the old hearty personal relation for which we are substituting something very mechanical. On account of the increased "overhead" incident to these modern arrangements, it has become more and more difficult to exclude commercialism and to rule out the element of cupidity. The tendency is for the doors to be thrown open to questionable practices, professional and financial, chiefly along the lines of needless surgery, needless diagnostic fussing, and unduly prolonged courses of treatment, with needless hospitalization and consequently needless expense. It is really quite wonderful that in the great majority of instances the work remains as honest as it is; for it is very easy to be crooked, and the difference between straight and just a little crooked can make an enormous difference in the professional income. I think the public is beginning to understand this, to assume an attitude of somewhat amused suspicion toward the doctor, and in general to contemplate acts of self-defense.

We should hold communion with ourselves and recognize this attitude and the facts that under-

lie it. If we can reestablish an attitude as friendly to the profession collectively as it was, and, broadly speaking, still is, to the family physician, then we have "sold" them our estimate of ourselves and it will not then be necessary by legislative enactments to ram it down their throats.

In order to make the people feel that generally their confidence in their physicians remains justified and that the element of cupidity is not brought into the foreground as often as they imagine, they must, in cases of abuse, have an outlet for their grievance. The patient with a "kick" may tell his troubles to his friends, maybe to another physician, or he may go to law; but he rarely secures any satisfaction. Many cases arise in which recourse to the law can offer nothing or in which factors of delicacy preclude the airing of grievances in public, cases in which the code of decency rather than the code of laws has been violated.

If people cannot complain, they grow more angry than if they had spoken. Collectively, these unspoken, unrequited grievances have done more to undermine the confidence of the public in our profession and have created more opposition to legislation in favor of the profession, more fear of a medical trust, than any other single factor that we have to deal with.

If, therefore, we wish to retain the good will of the public, and by means of a friendly electorate stimulate our legislators to regulate the practice of medicine as we should like to have it regulated, because most physicians recognize that the interests of the patient should be given first consideration, then as a first and essential step we should inaugurate an effective mechanism of self-purification and allow the public to participate in the process.

ALFRED C. CROFTAN, M. D.,

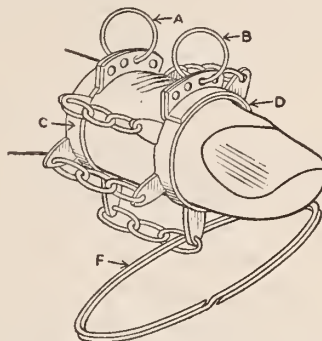
25 E. Washington, St.

Chicago.

THUMB SUCKING

To the Editor: It is well recognized that thumb or finger sucking in children and infants is a habit that should be controlled. If the habit is continued and becomes pernicious, especially in younger children where bones of the face are soft, various deformities may be produced causing a change in the facial contour, irregularities in the alignment of the teeth, or a protusion of the upper jaw over the lower. There may also be

caused an hypertrophy of the muscular tissues about the mouth resulting in a thickening of the lips. In the process of sucking a partial vacuum is produced in the back of the mouth, which may act as a stimulation to the growth of adenoids.



There may be acquired a deformity of the thumb or finger itself, and in some children from the sitting position assumed with the thumb or finger held to the face by the other hand, a certain amount of spinal curvature. Holt states "probably the most pernicious result of thumb or finger sucking is its tendency to develop the habit of



masturbation." Some children forget the habit soon; in others it is easily controlled, but in many the habit resists all effort to check it and occasionally may persist into early puberty or even into adult life.

Numerous remedies have been suggested, such as bandages, applications or bitter solutions to the thumb or fingers, the use of aluminum mittens, anyone of which may work occasionally, but Holt states that the only treatment with infants which is at all successful, is mechanical restraint, such as pinning the hands down.

In a few cases of my own, a recent device here illustrated has been used with entire success—one a boy of four years who had consistently sucked his thumb since infancy and to such an extent that instead of playing with other chil-

dren, he would retire to a quiet corner and indulge in his habit. Everything mentionable had been tried by the parents to correct the condition, but without avail. Three days after the application of the device, the boy gave up his habit but resumed it if the device was removed. However, within a period of two months he entirely gave up the thumb sucking and has shown no evidence of returning to it.

The apparatus consists of two adjustable rings, one fitting above and the other below the knuckle of the thumb or finger and connected by chain links which are fastened to dulled points projecting from the rings themselves. The child acquires no pleasure from having this device in the mouth during the day, but automatically, when asleep, it may introduce it to the mouth. To avoid this there is at night rather a large key ring attached to one of the chains which, because of size, prevents the introduction of the thumb to the mouth. The device is light in weight, will not cut, is easily adjustable to size, cannot be removed by the patient, and can be applied to fingers as well as to thumb.

JAMES J. McCARTY, M. D.

639 Sheridan Road, Chicago.

Society Proceedings

BOND COUNTY

The society met in Judge Hubbard's office in the Court House at 1:30 p. m., March 18th. The following officers were elected for 1922: Dr. C. H. Powell of Pocahontas, president; Dr. J. H. Gordon of Pocahontas, vice-president; Dr. W. T. Easiy, Greenville, secretary and treasurer; censors, Dr. D. T. Brom, of Mulberry Grove; Dr. E. A. Glasgow, Mulberry Grove, and Dr. D. R. Wilkin, Pocahontas. Dr. W. L. Hall was elected delegate to State Society and Dr. A. M. Keith alternate. Dr. C. E. Price of Robinson discussed the JOURNAL and urged the members to read the editorials. He then advocated cooperation in political and legislative matters. This was presented in a logical and impressive manner. Dr. C. W. Lillie of East St. Louis gave a good address on Medical Ethics and organization. The doctor spoke of the duty of the nurse to the doctor and touched on the community nurse, her position and duty to the doctor, especially she should not show any preference or partiality. Dr. W. E. Kaiser of Highland was a visitor and also discussed Medical Ethics.

CASS COUNTY

The following resolutions of respect to Dr. Geo. Bley were passed by Cass County Medical Society, meeting in regular session, March 9, 1922:

Be It Resolved, That we offer the bereaved family

and friends our sincere and heartfelt sympathy in this, their hour of sorrow. That we also wish to remark about his long and faithful service to the society, both as an officer and member, and it was largely through his efforts that the society owes its life and continued happy associations. That we also wish to state that Dr. Geo. Bley was a distinct credit to the medical profession and his life, both as a citizen and professionally, was ideal and his place can never be filled entirely, because few men are blessed with such a wonderful personality and high mental attributes.

His was a character that all could proudly emulate. With his passing we lose the last old school family doctor. He entered the family and gained their confidence and love, and passed as a precious heritage from father to son, from mother to daughter. A man he was who measured high among his friends and brothers. We offer tribute every one. He lived his life for others.

And Be It Resolved, That a copy of this resolution be spread upon the minutes of the Cass County Medical Society; also a copy sent to the leading papers of the county, and to the ILLINOIS MEDICAL JOURNAL.

Signed—G. Heyward Vernon, M. D., chairman; C. E. Soule, M. D., and E. P. VanArsdale, M. D.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular Meeting, March 8, 1922.

1. An Illustrated Talk on Bronchoscopy and Esophagoscopy.....G. W. Boot
DiscussionEdwin McGinnis
2. Cholecystitis. Its relation to Upper Abdominal Pathology.....B. B. Davis, Omaha, Nebr.
Discussion....L. L. McArthur, Frank Wright, Carl Beck.

March 15, 1922

Joint Meeting Chicago Medical Society, U. S. Public Health Service and the Illinois State Department of Public Health, March 15, 1922.

- A Preliminary Study of Thirty-Two Hundred Cases of Cancer.....Martin Engman, St. Louis, Mo.
Discussion.....Emil Ries, Chas. E. Humiston, I. Trostler, Ed. H. Ochsner.

Joint Meeting Chicago Medical Society and Chicago Urological Society, March 22, 1922.

1. Anatomical Features Underlying the Treatment of Gonorrhea.....William T. Belfield
2. General Considerations of Some of the More Common Urological Problems..L. E. Schmidt
3. Nephrolysis and Ureterolysis..Gustav Kolischer
Regular Meeting, March 29, 1922.
1. Clinical Diagnosis and Treatment of Obturator Hernia. Illustrated with Lantern Slides.
.....Leigh F. Watson
General Discussion

2. Suits for Mal-Practice as They Affect the Medical Profession.Clifford U. Collins, Peoria, Ill.

Discussion.....Robt. Folonie, Attorney,
Illinois State Medical Society.

3. Rectal Fistula Involving the Sphincter Muscles.
.....Chas. J. Drucek
General Discussion

CHICAGO OPHTHALMOLOGICAL SOCIETY

March 21, 1921

DIVERGENT SQUINT

Dr. Thos. D. Allen (by invitation) presented the following case: This boy was brought in a little over a month ago with a divergence of the right eye, drooping of the right lid, nausea, vomiting, and headache. He was put into the hospital immediately for diagnosis. The diverging attacks began about three years ago and recurred every week to every month. The longest one preceding the present was the first and it lasted eight days, the succeeding ones lasting only about three or four days.

The nausea and vomiting associated with the headaches and divergent squint in the right eye have been rather aggravating. Upon covering one eye, they stopped immediately. Vision in the eye was very poor. It was exceedingly difficult to have him do anything, such as chase balls across the room, because he would not cooperate well. Evidently there was vision in the right eye, the left eye being the fixing eye.

Examination revealed the spinal fluid absolutely normal; his blood was negative to the Wassermann test. He had, however, a leukocytosis of approximately 41,000, with 55 per cent lymphocytes. Subsequent counts during his stay in the hospital have gradually come down to normal, with the last reading 9,000, and the polymorphonuclear leukocytes over 50 per cent and lymphocytes 25 per cent. The ptosis has gradually diminished since he has been in the hospital until it is only slightly visible. The divergence has also gradually diminished, and the diplopia decreased, so that now there is none present at all. He can go around without any covering over his eye. There is some little asymmetry of the face. The right pupil has been dilated continuously, and it is impossible for him to move the eye more than a few degrees beyond the horizontal line.

He has been on Dr. Rothstein's neurologic service. A diagnosis of migraine has been made, but that is very questionable.

DISCUSSION

Dr. William H. Wilder said that these cases must be very uncommon. He thought he had seen but one before, and that seemed to be of the kind that was described by the neurologists as recurrent palsy occurring with migraine.

THE BLIND SPOT

Dr. Harry S. Gradle read a paper in which he gave a short review of the history of the discovery and investigations of the blind spot from the time of Mariotte to date. The various methods of study of the blind spot were then discussed, and particular emphasis was laid on the use of one or the other forms of tangent screens for the accurate delineation of the normal scotoma. Too short a distance between the

screen and the patient was decried because minute variations led to a great error. Equally, too great a distance tends to emphasize the importance of the normal neutral zone surrounding the blind spot.

The findings regarding the blind spot in myopia, sympathetic ophthalmia, eclipse blinding, retrobulbar neuritis of accessory sinus origin, and in medullated nerve fibers in the retina were then discussed in more or less detail. These were compared with the normal blind spot as measured with the author's magnet scotoma.

In conclusion it was urged that more attention be paid to the careful declination of the blind spot as many points of great clinical assistance can be deduced from such study.

DISCUSSION

Dr. William H. Wilder stated that the question of arrangement of the fibers of the optic nerve as they emerged at the optic disc was an interesting one. The suggestion that was originally made, later confirmed by Fuchs, was that the peripheral fibers of the optic nerve were those that supplied the parts of the retina in proximity to the optic disc, while intermediate and peripheral zones of the retina were provided by fibers that were in the intermediate and central parts of the nerve. This seemed the most natural explanation but it was by no means proven, because there were other observers (Collins, Mayou and others) who held that just the reverse obtained; namely, that the peripheral portions of the retina were supplied by the peripheral fibers of the optic disc, and the intermediate and central areas by fibers more centrally placed in the nerve. The latter view did not seem so attractive because it would mean that the portions of the retina nearer the optic nerve would have to be provided by fibers that would come out from the nerve and then dip down through the various layers of the retina to the pericipient layer.

However, in practice he thought one might meet some cases which would seem to indicate that the latter view was just as tenable as the former. For instance, in cases of deep physiologic cupping of the optic disc on the temporal side of the nerve head, if hypertension of the eyeball occurred, the vitreous could be readily forced into this cup and would exert pressure on the delicate nerve fibers of that side of the optic disc forcing them against the firm unyielding scleral ring. Such pressure would be likely to injure first those fibers lying next to the firm ring. It had been satisfactorily demonstrated that the macular and paramacular fibers occupied a space in the temporal quadrant of the optic disc, and pressure on these could produce the paracentral scotoma so frequently observed as an early sign of glaucoma. But above and below this segment of macular fibers, lay those destined for other parts of the retina and the well observed fact that contraction of the inferior or superior nasal field was also one of the early signs of glaucoma would seem to lend support to the idea that fibers going to parts of the retina concerned with the nasal fields must have been early subjected to severe pressure and the damage probably would be greater to those fibers lying next to the firm scleral ring.

Dr. Gradle has emphasized the importance of studying the blind spot in our clinical investigations. Probably this, like field taking, was frequently neglected by the busy practitioner. Taking fields was very irksome and time consuming and hence might very easily be done carelessly and with inaccurate results. The utmost care was necessary on the part of the observer to see that the patient did not give the wrong information, and the observer must be on the alert at all stages of the examination. So there was a double source for subjective error. Speaking generally, he supposed field taking was about the most inaccurate examination that the average ophthalmologist did. If this was true of our perimetric measurements, it was probably equally true of our measurements of the blind spot, and in this one had been further hampered

because until quite recently instruments for the purpose had been rather imperfect.

The introduction of the Bjerrum screen was a valuable improvement for it was impossible to outline the blind spot with any degree of accuracy with the ordinary perimeter. The campimeter of Peter was a valuable instrument and he had found it much more practical than the larger Bjerrum screen, although possibly not so accurate. He had recently been using with satisfaction the stereocampimeter of Lloyd, with which he thought he obtained even more accurate results, for the patient's attention could be more concentrated.

With exceptions, enlargement of the blind spot would seem to indicate pathologic conditions. It might occur from disease in adjacent cavities and spaces, the sinuses, and ethmoid cells, and this emphasized the importance of being able to measure this peculiar scotoma carefully and with all the accuracy possible, because it might be a deciding point in the whole case, and it might be, after carefully excluding all other causes for a suddenly developing blindness in one eye, that one had to rely on the measurements made of the normal blind spot as a guide or indication for operative procedure on the sinuses. In such cases it would seem that there was a reason for the theory that Fuchs advanced, that the peripheral fibers of the optic nerve head were those that supplied the contiguous area of the optic disc or nearby areas of the retina; and yet this was not absolutely proven by such an occurrence because it might be that in some of these cases the trouble in the optic nerve, particularly if it was in the canalicular portion, might result from edema in the central portion of the nerve from infection passing through the small vessels that entered it.

As to enlargement of the blind spot, which appeared as an early sign of glaucoma, Bjerrum, and later his followers, Seidel, Rönne and others, pointed out that this was not so much an enlargement of the blind spot, as it was an area of blindness, beginning in some instances as a paracentral scotoma, that became linked up with the normal blind spot and it was that which Bjerrum laid particular emphasis upon. Seidel stated that there would be a sickle-shaped blind area upward and downward or both, that was connected with the normal blind spot.

These signs he had observed in the examination of early glaucoma and they emphasized the importance of a careful study and record of the condition of the blind spot in these conditions.

Dr. Gradler, in closing, said: The blind spot was not always oval, and not always round, particularly in the higher degrees of hypermetropia, where one found the blind spot more round than oval. The blind spot did not lie in the exact position depicted. It might have its greatest diameter above the horizontal median line or below as it was usually depicted. It might be comma-shaped or pear-shaped. It was usually jagged, due to projection of the larger vessels. On the average it would show a fairly oval blind area with the majority (approximately two-thirds) lying below the median line.

There were certain phases of examination which favored the Collins and Mayou idea of a central location of the peripapular fibers from the retina, but such a location involved the idea of retinal decussation of fibers, which was something that had not been shown anatomically. It was difficult on that basis to explain many of the phenomena concerning enlargement of the blind spot that were found particularly in accessory sinus disease. He was inclined more to the probable, but not absolutely proven theory of Fuchs as to the peripheral location of these fibers in the intracanalicular portion of the optic nerve.

The most vulnerable portion of the nerve was the macular bundle and pressure would yield central scotoma far sooner than anything else. If the peripapillary fibers which dominated the outlines of the blind spot were located centrally, one would expect an enlargement of the blind spot with central scotoma in every case, but quite the reverse was true. Where there was central scotoma the blind spot enlargement was a secondary affair, if present at all. When there was enlargement of the blind spot as one of the early symptoms of

retrobulbar neuritis, the central scotoma seldom, if ever, appeared. That would lean more toward the theory of the peripheral location of the fibers rather than central. Furthermore, the course of the retinal fibers showed no decussation of fibers, and the course of the retinal bundle could be studied carefully. If these fibers came from the center of the optic nerve or rose up to the center of the physiologic excavation, the fibers could be seen by the modern methods of ophthalmoscopy.

A SIMPLIFIED INTRANASAL OPERATION FOR OBSTRUCTION OF THE NASO-LACRIMAL DUCT

Dr. Robert H. Good described a simplified intranasal operation on the lacrimal sac and tube, which he said could be readily performed by rhinologists and ophthalmologists.

The nose is thoroughly anesthetized with adrenalin and flakey cocain. The lower canaliculus is dilated, and with a syringe a few drops of a 10 per cent solution of cocain in adrenalin are introduced into the sac. In nervous patients it is wise to inject the intra-orbital nerve with novocain and administer one-quarter grain of morphin hypodermically one-half hour before operation. He has occasionally injected novocain between the sac and the lacrimal bone as well as into the lacrimal groove.

The anterior end of the inferior turbinate is removed with bone forceps as close as possible to its attachment and just beyond the duct opening. A grooved lacrimal probe is now introduced through the lower canaliculus and passed through the naso-lacrimal duct into the inferior meatus of the nose. The probe should be as large as can be passed without force and without injury to any structures. An incision through the mucous membrane is made from high up just in front of the middle turbinate down to the edge where the inferior turbinate has been removed, terminating just anterior to the probe. The membrane is elevated forward and backward, which makes two triangular flaps with the apices above. A special nasal chisel hollowed out with dull corners is placed at the anterior crista of the inferior turbinate. About one-quarter of the circumference of the bony wall is chiseled away. The anterior portion of the lacrimal bone, and the posterior portion of the frontal process of the superior maxillary bone have a depression on the orbital side in which lies the lacrimal sac, and the depression causes a bulging or convex elevation in the nose over the sac which makes it easier to chisel. This elevation of bone is chiseled off up to about the middle of the sac. A small crow beaked knife (curved bistury) is now placed into the groove of the lacrimal probe, and the duct and half the sac incised. The flaps readily fall into place and the operation is completed. There is no aftertreatment required. By using a chisel, instead of bone forceps, we avoid injuring the membranous duct, and a larger section of the bony canal can be removed, and one can always have the lacrimal probe for a guide. By biting off the anterior end of the inferior turbinate one can do no harm to the duct. The flaps do not need to be sewed as they remain in place. A longitudinal incision through the sac causes much less trauma than the

removal of a section of the sac, and if the incision is long it drains better and there is no danger of cicatricial contraction of the sac.

It has been a common practice for years to slit the canaliculus in cases of dacryocystitis, but this practice is hitching the horse to the wrong end of the wagon. An eye with a slit canaliculus never looks normal nor drains the tears as readily as a normal canaliculus. This should never be done except in lesions in the canaliculi or upper portion of the sac.

Some operators describe the slitting of the inferior canaliculus as a part of their procedure in doing an intranasal operation on the sac. This destroys the capillary action of the canaliculus and makes the gravity of the tears practically nil, as the distance from the artificial opening in the sac to the common opening of the canaliculi is extremely short.

The essayist has not failed so far to restore the function in any case that he has operated, and he has not carried out any after treatment whatever except the use of a few drops of adrenalin 1/20,000 in the eye morning and night, and occasionally injecting a little argyrol into the canaliculus with a syringe to demonstrate to himself and to the patient that the argyrol comes out through the nose.

The author then detailed five cases in which he had performed this operation with gratifying results.

DISCUSSION

Dr. William H. Wilder asked Dr. Good to explain what he did in cases in which there was a dense stricture that was absolutely impermeable. Did he use force in passing the probe through the hony duct? Did he expect the duct, in which there was an impermeable stricture, ever to function again? Would it remain open after such an operation? Would there not be a continual contraction of the stricture as before, when the slit in the side of it closed?

Dr. Sidney Walker, Jr., asked Dr. Good in regard to the bacteriology of the conjunctival sac following these operations in cases of chronic dacryocystitis, where a cure was to be formed, and further as to what methods were employed for irrigation of the sac, and whether it was necessary.

Dr. Good spoke of putting a few drops of argyrol into the sac itself. He had caused an argyrosis in that way, and he should rather think argyrol would be contraindicated in such cases.

Dr. Harry S. Gradle said that it stood to reason that Dr. Good's procedure was not indicated in such a tear sac where there was stenosis or stricture in the upper portion of the sac or the lacrimal canal superior to the sac. It was of value only where the stenosis was below the median half of the sac or nasal duct.

The anterior themoidal cells were in intimate relationship with the upper portion of the lacrimal apparatus, and was it not extremely probable that a large percentage of cases of so-called dacryocystitis were purely secondary to ethmoidal disease, and that some of the cures that were affected by various types of operation were due to removal of the primary source of infection by the spontaneous cure of the ethmoiditis?

According to the figures from some of the foreign clinics, about 80 per cent. of extirpations of the sac were failures, in that they failed to restore the function of the normal tear passage, so that the tears did not have free access to the nose, and 40 per cent. of the Toti operations failed to show free passage of the tears in connection with the use of argyrol.

There was one other procedure that should be mentioned, the method of von Szily of taking roentgenoscopic pictures of the tear passages. He injected a small amount of harium

or thorium sulphate, with a fine syringe into the tear passage, and then he took a roentgenogram of the passage. This gave an exact outline of the tear passage as far down as the fluid could be syringed, and the location of the stricture could be determined and the type of operation to be employed was more readily available.

Personally, he did not believe anything like the last word in regard to tear sac operation, had been said, and would not he until some operation which would restore the function of the lacrimal passage to its natural state had been devised.

Dr. George F. Fiske said that the operation described by Dr. Good was extremely useful and could be employed in many cases. After all, cases in which there was stenosis of the lacrimal duct were not common. This operation was adapted to those cases where the trouble was at the lower end.

Dr. Good, in answer to Dr. Wilder's first question about stricture, said that he proceeded without the probe. He chiseled away the inferior turbinate which formed the inner wall of the hony duct, then the probe went down into the nose and he proceeded.

He had had two cases of double fracture of the superior maxilla in which he did this operation.

In answer to the other question, if there was destruction of the mucous membrane in the sac, or if one had cicatricial tissue obliterated the sac, this operation did no good. In a case like that, perhaps the old method of extirpating the sac might be the best, but very few sacs needed to be extirpated nowadays.

CHICAGO OPHTHALMOLOGICAL SOCIETY

Meeting of May 26, 1921

DR. E. K. FINDLAY, PRESIDENT

Dr. Ludwig Hektoen of Chicago read a paper on "The Specific Reaction to Lens Substance."

Lieut.-Col. Henry Smith, of Amritsar, India, gave an address on

MATURE AND IMMATURE SENILE CATARACT

He spoke as follows:

I propose to speak to you on the relative merits of the two leading methods of dealing with senile cataract, mature and immature. This, I presume, we all regard as the great issue of today in ophthalmology. That it is a burning issue is clear from the vehemence that is displayed in the ophthalmological press. Quotations are often times gathered from men who have little or no practical experience with this intensely practical subject, even though they have written books and have honored names in other departments; and on the strength of such quotations is used such language as "extraction of cataract in the capsule under conditions existent in a civilized country is utterly inexcusable." The capsulotomy schools do not all use quite as strong language as this. Another writer lays down the dictum on this subject that the literature on a matter of this kind is always favorable to anything new. Does anyone really hold that the intracapsular operation has been received in this way? Does anyone hold that Listerism was received with open arms when it was new? Does anyone hold that Litholopaxy when introduced by Freyer and Keegan using the instrument devised by your own great citizen surgeon (Bigelow) was received favorably by the genito-urinary surgeons of the world? No! These and all similar innovations on time honored practice have been received with the utmost hostility.

The capsulotomy operation of today is practically

where Daviel left it. Details have come into existence and gone out of existence with all the frequency and ease which befall philosophic theories. All the same, Daviel's operation is substantially the capsulotomy operation of today. A new detail does not make a new operation. We are told that* Daviel's operation has held the field since 1745. Its advocates should state that, while it came into existence in 1745, it was not practiced to any extent until Joseph Lister had established his case and that extraction by capsulotomy in a general sense only commenced to supplant lens couching in the early eighties. The late Sir Jonathan Hutchinson (who founded Moorfields in London) told me that they would never have departed from couching in London, but for the fact that the vision (following couching) rapidly failed, and finally vanished. He was the first man, I have come across, who was aware that progressive atrophy of the retina invariably followed the best results of lens couching (night blindness). It was Listerism and cocain which gave the great impetus to the extraction of cataract.

The younger members of the profession have to be reminded that the capsulotomy operation, as we know it, has only been extensively practiced for the past forty years. You will thus see that of these two rival operations the capsulotomy operation is not so very much older than the intra-capsular as we do it in India today, which dates from the nineties of the last century.

The capsulotomy operation had, however, a good start as soon as it was practiced extensively, as it had been taught and had been before the professional mind from 1745 as a desideratum. The intra-capsular method, since I commenced to advocate it and to teach it, is hardly twenty years old. I do not claim to be the first man to do intra-capsular extractions. MacNamara, in Calcutta, and Pagenstecher extracted cataract in the capsule by lifting it out on a spoon. I think the first to extract cataract in the capsule by expression, in a limited proportion of cases, was an American, Dr. J. W. Wright, of Ohio, who published a paper in 1884. Shortly after this Malroney did practically the same operation on almost all his cases. It is a pity that Wright's work did not attract more attention even in his own country. Malroney did a vast amount of excellent work, but did not write at all; and thus his experience is lost to the ophthalmological world. I have never seen him operate. Neither McNamara nor Pagenstecher's method appealed to me. Wright was unknown to me. Malroney's results I had seen but not his methods. I also saw that patients could on occasion squeeze out the lens in capsule successfully themselves. The results of the patient's efforts were excellent. I proceeded to imitate the accident and evolved what I have done independently of anyone. This method may yet be only in its infancy but it promises to be a hardy youth.

We are told that we are received unduly favorably. This is not so. When I read my first paper, at the British Medical Association meeting, in 1903, on an experience of 6,000 cases I was received with icy cold-

ness. I was at the head of a list for a paper before the British Medical Association, in 1908. There were six or seven unimportant papers to follow. At the commencement of the sitting the President said, "I shall reverse the orders of the papers," which left my paper to be taken as read. This was surely not unduly friendly to say the least! However, I have not always been treated with such scanty courtesy.

Dr. Herman Knapp is a name which you all revere, his results are frequently put forward with the implication that intra-capsular extraction could not give better results. It may surprise American ophthalmologists to hear that, after he read the paper I brought before the British Medical Association meeting in 1903, previously alluded to, he wrote to me: "If you can devise a method to extract cataract in the capsule you will be a greater benefactor to mankind than Daviel. If I were not over 70 years of age and in delicate health I would go round the world to see how to do it." This was the first word of encouragement that I received from ophthalmologists and that letter is the foundation of the welcome I have given to American ophthalmologists in Jullunder and Amritsar.

I will now put before you, in a general way, the advantages and disadvantages of these two rival operations. Intra-capsular extraction is only within the range of men who have had high class technical training in the art. It is a difficult operation. The capsulotomy operation is a relatively easy and simple one. Intra-capsular operation requires a skilled assistant. The same amount of skill is not required on the part of the assistant in the capsulotomy operation.

Any incision, if large enough for intra-capsular extraction, and any flap, will do equally well in either operation, according to the preference of the operator. Similarly an iridectomy or no iridectomy may be done. The intra-capsular procedure can be done with equal ease at any stage of maturity. In the capsulotomy operation the cataract should be mature.

After-cataract follows the capsulotomy operation and requires to be operated upon. There is no after-cataract following an intra-capsular operation. Iritis is a frequent complication after capsulotomy but is practically absent after the intra-capsular operation. Vision is better after intra-capsular than after capsulotomy. Vitreous escape, in skilled hands, is about the same in both operations. Sepsis more frequently follows the capsulotomy operation, often due to tags of capsule left in the wound.

Two disadvantages of the intra-capsular operation are (1) a somewhat larger proportion of prolapse of iris in the non-iridectomy cases, and (2) a slightly drawn-up pupil in the iridectomy cases. Choroidal detachment is equally common to both.

Iritis. Before I raised this issue in 1903, it was the generally accepted view that iritis, following cataract extraction, was due to the bruising of the iris in the process of extraction. I stated that chapter would have to be rewritten, as iritis did not follow in one in 500 cases in extraction of the lens in capsule, though

an entire pupil which had not been acted on by a mydriatic; though there must of necessity be much more bruising of the iris in the latter case than in the capsulotomy operation. Iritis, therefore, is caused by the lens matter and capsule left behind in the capsulotomy operation, as I have often previously laid down. This view has, since that date, been accepted, but no credit has been given to intra-capsular extraction for demonstrating this fact. I now go further and say that it is caused more by capsule left behind than by lens matter. This is evidenced by the fact that when the capsule bursts, in the intra-capsular extraction, if we are able to extract the capsule and yet leave a little lens matter behind (as is often the case) iritis does not follow, but if the lens capsule is left behind iritis frequently does follow.

Since intra-capsular extraction came prominently into the field our opponents of the capsulotomy school tend to make little of iritis, both of its frequency and of its consequences. In my observation it is more frequent than many of the papers published would lead us to believe. It is not an unimportant complication. I consider iritis a serious complication, causing the iris to be cemented to the after-cataract and the pupil often to be occluded with a dense membrane, if no more sinister consequences happen. I have seen any number of such cases operated by most experienced operators in India, such patients being told that nothing more can be done for them. If you gentlemen who operate by the capsulotomy method do not often come across such cases you are highly to be complimented. Time does not permit me to deal with the treatment of after-cataract of this nature.

After-Cataract is a subject for a whole sitting in itself. If you refer to the journals of the past you will observe that before the year 1903 the treatment of after-cataract was the evergreen of ophthalmological meetings. Before that date the treatment was regarded as serious, from the point of view of the patient, as the extraction of the cataract itself. Mr. Richard Cross opened a discussion on this subject at the British Medical Association meeting, in 1901, in which he laid down that the ideal extraction of cataracts was in the capsule, but that that was not possible, and this was tacitly admitted by the meeting. So much for the significance of the after-cataract at that time. Since 1903, if you look up the discussions on after-cataract you will notice the change that has come about. It has hardly appeared as a full dress subject at any meeting. You would infer that today it is a trifling, unimportant proceeding associated with no sinister results.

When we consider that as Listerism applied then as it does now and that the same instruments and methods were used then as now, the position seems inexplicable. In my observation just as severe forms of after-cataract occur now as did then and as severe results are associated with the needling of them. The removal of a portion of the anterior capsule having become more fashionable than it was then, may render the after-cataract a little less dense in the case of

mature cataracts; but when we recognize the fact that since intra-capsular extraction came into the field for any stage of immaturity, the policy of extracting by capsulotomy of immature cataract has also come into the field, with the result that in these cases the after-cataract must be dense and must be dealt with; so that in my opinion dense after-cataract is as frequent as ever it was.

This view is supported by the fact that in the United States you have advocates who laud the introduction of needling an immature cataract, so as to cause it to mature in a day or two. This fact is evidence that it is recognized that a dense after-cataract follows the same process in America that it does in India. To my mind this method only needs to be mentioned to be condemned. Such a proceeding deliberately produces a traumatic cataract. Who has ever seen a traumatic cataract in a patient without a violent iritis? I have not and I have seen many of them. I go further and say that these are the most difficult of all cataracts to deal with. If we decide to extract the immature cataract we must put our courage together and extract it in the capsule.

The Incision. One of the objections raised against intra-capsular extraction is that the incision is of necessity too large, not exceeding 180° . This conclusion would imply that it interferes with the nutrition of the cornea, causes an objectionable amount of astigmatism or is followed by a greater percentage of septic cases than the smaller incision used in the capsulotomy operation.

With my enormous experience I can state that not one of these premises is based on fact. Those who advance these conclusions do not advance a single fact to support their premises. They say—"this" must follow or "that" must follow—but "this" and "that" do not follow when examined by hard facts. Our opponents say that we cannot do intra-capsular extraction with a conjunctival flap. This is nonsense; we can do it with any flap or any incision provided it is large enough. Much is made, by the way, of the powerful nutritional influence of conjunctival flaps. I saw a dexterous operator do intra-capsular extraction through a Cermack's incision. He subconjunctively cut two-thirds or more of the sclero-cornea with scissors. I saw a number of such cases several days after operation. They demonstrated that the nutrition of the cornea does not depend on the conjunctiva, as every case had extensive patches of starvation opacities which would never recover. These starvation patches do not follow when the incision does not exceed 180° of the sclero-cornea without a conjunctival flap. It is thus evident to me that the nutrition of the cornea for practical purposes is not through the conjunctiva.

Iridectomy. It is also advanced against intra-capsular extraction that we cannot do this operation without an iridectomy. This is not so; we can do it through an entire pupil uninfluenced by a mydriatic, just as well as with an iridectomy. We can go further, we can do it well in cases in which the iris is tied down to the lens by iritic adhesions. In this latter

case if you extract by the capsulotomy method you will have violent iritis and its consequences in every or almost every case. You will thus see that our limitations are less than those of our opponents.

Vitreous Escape. This is the great issue. Our opponents would seem to have much less of this evil than formerly was the case, but on the basis of large series of figures, reaching back into the nineties of the last century, they have to admit 7 per cent incidence of this complication. A skilled operator by the intra-capsular method should not have more. In intra-capsular extraction with control of the eyelids as we do it, when vitreous escapes it would be of small amount. In my observation escape of under a third is not followed by sinister consequences. I think the capsulotomy operators will admit that when they have escape of vitreous it is considerable in amount, as they do not control the pressure of the eyelids as we do.

The consequences of escape of vitreous in these two operations are quite different. In the intra-capsular we do not fear iritis or irido-cylitis as a consequence. Our opponents have to admit then when vitreous escapes they have at once to close down leaving the capsule and a considerable amount of lens matter in the eye and that under such circumstances they have frequently a severe irido-cylitis. Our opponents say that when vitreous escapes it is not renewed. How do they know? Why make such a statement in an offhand way when it is based on the absence of knowledge. The physiology and pathology of the eye are hardly in their infancy. We must admit that from birth to mature size the vitreous body has grown. This implies a physiologic mechanism through which it has grown. The statement that vitreous is not renewed after escape implies that that mechanism has ceased to exist when the vitreous has reached mature size. How do they know? They do not know. I saw not long ago a horse breaker who had both lenses extracted in capsule fifteen years ago. In each eye there had been considerable escape. I examined him. His vision in each eye was better than 6/6, and there was no sign of degeneration. How does the above assertion fit in with such a result. The reverse could far more plausibly be held.

The Pupil. In non-iridectomy cases, the pupil is as central in one operation as the other. In the case of iridectomy the pupil is more central in the old operation than in the intra-capsular, and occasionally much more so. If you use a mydriatic in the old operation, afterwards, you will observe that the pillars of your coloboma are practically always tied down to the after-cataract by adhesions though it may be comparatively free elsewhere. This is the cause of the keyhole pupil. The entire pupil contracts on the center, the iridectomy pupil (if there are no adhesions as in the intra-capsular cases) contracts on the point of attachment of the iris to the ciliary region. This mechanically straightens out the keyhole into the shape of a U and of necessity draws up more or less the lower part of the pupil.

My ambition is to be able to do without iridectomy entirely. I hope to be able to accomplish this object by finding some drug or some method which will paralyze the orbicularis muscle for five or six days after operation. It is the contractions of the orbicularis which are the cause of the prolapse of the iris. I hope other workers will devote thought and energy to this issue, which I consider one of the most important on cataract extraction as it stands today. Among other things it will eliminate the necessity of an assistant.

Dressings. It is advanced against us that we do not dress and inspect our cases often enough. We must remember that this is one of the most major operations of surgery. Iritis we do not have. The only complications are sepsis, choroidal hemorrhage and prolapse of iris. In my observation sepsis and choroidal hemorrhage defy treatment; besides such cases give indications and naturally are inspected. Prolapse of iris may give no indication and is much better left alone for ten or twelve days, as interfering with it earlier may cause the patient to burst open the whole wound and has no other advantage. Why should we reverse the canons of surgery by dressing and inspecting wounds daily? By doing so we are depriving the affected area of surgical rest. Such daily dressings are meddlesome surgery.

The Assistant. We are accused of requiring a skilled assistant. What general surgeon would listen to such an argument. We are also told that to be a perfect operation it must be such that any ophthalmic surgeon can do it as well as any other. Does the general surgeon say that Dr. Cushing's proceeding of dealing with a diseased hypophysis is bad because very few will attempt it? Does the general surgeon say that excision of the Gasserian ganglion is bad because very few will attempt it? Still, I hope that the day is not far distant when intra-capsular extraction will be considerably simplified.

Barraquer's Operation. I recently visited Dr. Barraquer in Barcelona. He received me with the wholehearted kindness and courtesy of a Spanish gentleman. Dr. Fuchs, Sr., was with him. He operated on a few cases before us with his erisiphake. It acted beautifully. He insisted that I should operate also to show him how I did the operation in India. Mine came out as easily and as perfectly as his, and in both cases with the minimum of violence. We three were agreed that in the hands of the two experts there was nothing to choose between them. Dr. Barraquer's instruments may not require as highly a skilled assistant as my method. On the other hand, it is a highly complicated apparatus with plenty of possibilities of going wrong at a critical moment, in the hands of a man who has not thoroughly mastered its mechanism and whose fingers have not grown to act automatically.

The instrument requires a technic of its own. Those who have mastered my technic, I am confident, will have no difficulty in using it, as a good deal of the technic is common to the two methods. They are complimentary to one another. The erisiphake is but in its infancy, and we have yet to see if it will master

certain classes of cases as well as the older intra-capsular method, but in most cases I have no doubt it will act beautifully and be a simpler method to acquire skill in. I was immensely pleased to meet Dr. Barraquer, a whole-hearted believer in intra-capsular extraction, and to see him use his instruments. It has in my opinion come to stay and will help to make matters move on. I congratulate Dr. Barraquer on all the energy and zeal which he has devoted to making this method perfect. When Hulen's instrument came out, I tried to get one, as the method appealed to me. Throughout the war we could get nothing of the kind done in England.

Character of Patients. It has been repeatedly advanced that what will succeed in Indians—an uncivilized people—will not succeed among nor satisfy a civilized people such as the white races. Those who write thus seem to be unaware that Indians belong to the Ayran race, to which we also belong; and that they were a highly civilized race long before Europeans were. You have only to read Hindu and Buddhist philosophy to find this out. As regards the whole range of surgery the people of India measure your worth by results, and as much as the people of Europe or America do. It is on this basis that litholopaxy supplanted lithotomy in the last two decades of the last century. It is on this basis that intra-capsular extraction of cataract has got the upper hand over the capsulotomy method in India. To assume that you can cut or hack about Indians in any way you please and that they will recover shows gross ignorance. As a matter of fact they are not as good subjects for operation as Europeans. Their vegetarian diet I presume is the cause. This is the best defined in the operations subject to surgical shock. It is not uncommon in the west to see an operator spend one and a half to two, or even three hours on an intra-abdominal operation and for the patient to recover as a matter of course. In an Indian if you expect a similar operation to be successful you must not spend over an hour on it and if you do it in half an hour your death rate will not be nearly so large. The principle herein involved is the same all down the line, cataract included. The Indian has not anything like the same recuperative power as the European.

Conclusions. It is often advanced by implication that my facts are worthless because I am overworked, and that by men who are not aware that cataract is but a part of my work. I had once a distinguished member of the profession on a visit, when leaving he told me that he wondered how I got through the work, but he now understood. He said, "You are not overworked; you are not hustled; it is your organization that is the explanation; everyone about you has got his job and knows it, and has got to do it, leaving what you want to yourself." After thirty years on the plains of India I do not look like a man who has been overworked.

As regards my facts, I have satisfied myself, I have published statistics of cases selected before operation which should satisfy the most fastidious. To publish

the details of between 40,000 and 50,000 cases would make up a volume in itself, which I presume no one would read. Those who have visited my clinic have seen everything, there was nothing concealed from them.

As regards the status of intra-capsular extraction of today, views expressed in papers of the west are misleading and take too narrow a view of the outlook. It is a yellow peril. I think I am not overstating the case when I say that close on 25,000 cataracts a year are done by the intra-capsular methods in India, and that ten years hence we may have to add another ten thousand. Thus India will have a voice in the decision. This method has come to live and dominate its opponent in the whole East, and in my opinion will come to be the operation the world over twenty years hence.

DISCUSSION

Dr. W. A. Fisher: It may be interesting to know that Smith has developed a special technic for removing cataract without the assistance of others, as he has always been far removed from medical centers. There is a six weeks' season twice in the year, spring and fall, for removing cataracts and during the season 20 to 35 cataract operations are done daily, all by Col. Smith. The dressings are not removed for nine days after the operation and to see more than 200 patients in one hospital with their eyes bandaged is a sight unusual, and not to be seen at any other place on earth.

He does all this with native assistants and only one trained nurse. He has trained everyone of those about him to do his part and they do it well. He has one non-medical native to boil his instruments, and one to assist in the operation who can hold the lids away from the eyeball as no other one can.

He has presented the advantages and disadvantages of removing the lens in the capsule, and the advantages and disadvantages of the classical operation of opening the capsule and removing the lens, and leaving the capsule in the eye. It would be a simple matter to convince a surgical society that a tumor should be removed in its capsule if it can be done in that manner. A cataract removed in this manner is considered by ophthalmic surgeons to be the best operation that can be done, but many believe the danger too great to even give it a trial.

Dr. Smith deserves great credit for the many suggestions he has given us, and especially his method of holding the lids away from the eyeball, and this method, or some modification of it, will be the means of saving many eyes that otherwise would be lost, whether the intracapsular or capsulotomy operation is performed. About one-third of his students have modified his method of lid control, and I believe some day will modify the operation he so skillfully performs and make it so simple that all operators will remove lenses in their capsules. Colonel Smith admits that Dr. Barraquer of Barcelona, Spain, has perfected an instrument for that purpose which is a modification of the one made by Vard Hulen of San Francisco.

(To be continued)

JEFFERSON COUNTY

The Jefferson County Medical Society and the Jefferson County Dental Society held a joint meeting on the evening of March 3, both societies participating in the program.

Dr. J. J. Corlew, a dentist, gave an address on "The Diagnosis of Dental Infections," illustrating his talk with numerous x-ray films showing periapical abscesses, absorption, separation, etc.

Dr. G. H. Herbert, a dentist, gave an address on "Should a Devitalized Tooth be Retained in the

Mouth?" His conclusions were that all frank suppurations and other related lesions demonstrated by physical examination or x-ray film should be deemed sufficient to warrant the removal of the devitalized tooth. This was especially so in any case of a patient showing signs of ill health that might be attributed to dental infections. However, devitalized teeth in robust subjects need not be sacrificed, especially if the lesion be not pronounced and the patient shows no signs of poor health.

Dr. Hugh Maxey gave an address upon "Systemic Conditions Resulting from Chronic Dental Infections," going thoroughly into the relationship of the numerous results of focal infections in general and dental infections in particular.

The addresses were freely discussed by both societies. The discussions were opened for the dentists by Dr. M. M. Lumbattis, and for the physicians by Drs. Chas. W. Hall and William G. Parker.

Dr. Barney Garrison of Wayne City, Ill., was a visitor and favored the meeting with an original poem entitled "The Old Family Doctor." He was voted the title "Poet of the Skillet Fork."

The Jefferson County Medical society will meet at the residence of Dr. W. H. Gilmore on the evening of March 24. Dr. C. W. Lillie of East St. Louis will give an address, and a dinner will be served.

W. G. PARKER, M. D.,
Secretary.

Marriages

JULIUS I. MANDEL to Miss Frieda Okun, both of Chicago, February 7.

WALDO A. SCHAEFER, Galena, Ill., to Miss Ida Elizabeth Shand of Springfield, Ill., March 18.

ARTHUR ERWIN SMITH, Chicago, to Miss Miriam Helen Mitchell of Kansas City, Mo., at Chicago, March 11.

WILLIAM H. WOOLSTON, Chicago, to Miss Alice Marie Gilmore of Detroit, at Evanston, Ill., February 24.

Personals

Dr. William E. Constant has been appointed superintendent of the St. Charles City Hospital, St. Charles.

Dr. A. J. Roberts has been elected president of the La Salle County Tuberculosis Association, to succeed Dr. Maciejewski.

Contracts have been awarded to the following physicians of Piatt County for medical attention to paupers, as follows: Dr. Abe D. Furry, Monticello, and Dr. Vigo T. Turley, Bement.

Dr. Walter H. Watterson, Veterans' Bureau,

Chicago, has been assigned to the U. S. Veterans' Bureau Hospital No. 76 (Speedway), Chicago, as member of the tuberculosis board.

It is announced that Dr. Clarence E. McKinney, Paxton, who served in the Italian army with the ambulance corps during the World War, has received the official decoration which creates him a "Chevalier of the Order of the Crown of Italy."

March 17, President Ray Lyman Wilbur, of Leland Stanford Junior University, delivered the first John M. Dodson Lecture to the students, alumni and faculty of Rush Medical College. His subject was "Medicine: A Look Ahead." The lectureship was established by the Alumni Association in recognition of Dr. Dodson's service to the college and to medical education.

Dr. I. Lange announces that he has resumed general office practice at 31 North State street, Chicago, after an interval of twelve years' work in the leading clinics and institutes of the University of Vienna.

Dr. Edward Louis Heintz, of Chicago, addressed the Elgin Physicians' Club, March 13, on "Peptic Ulcer."

Dr. W. H. Shipley has resigned as medical director of the Rockford Municipal Sanitarium.

News Notes

—The contract has been let for the new Mercy Hospital at Champaign.

—A new home for orphan children will be erected by the Masons at Rockford.

—Ground will soon be broken for the erection of a new hospital at Hillsboro, at a cost of \$250,000.

—The Lake County General Hospital, Waukegan, was recently damaged by fire at an estimated cost of \$10,000.

—A communicable disease hospital will be erected at St. Joseph's Orphanage, Lisle, DuPage County, at a cost of \$10,000.

—Plans have been completed for the New Champaign County Children's Home, Rantoul, and the building will be erected at a cost of \$37,500.

—A home for indigent British people will be erected and endowed by the Daughters of the British Empire in Illinois at a cost of \$100,000. The purpose of the institution is to relieve

the community from paying taxes for the upkeep of aged destitute foreign-born residents.

—At the meeting of the Robert Koch Society, February 28, at the Chicago Tuberculosis Institute, the following officers were elected for the coming year: President, Dr. Everett Morris; secretary, Dr. Guy Edward Beard; trustees, Drs. Gray, Britton, Rice, Wheaton and Biesenthal.

—The Chicago section of the American Chemical Society was host to nine neighboring sections at a meeting at Northwestern University, March 11. In the afternoon, Dr. H. E. Howe, newly appointed editor of the *Journal of Industrial and Engineering Chemistry*, delivered the main address; in the evening a report was made of the work done by G. L. Wendt and C. E. Irion on the breaking down of tungsten into the simpler element, helium.

—A conference on social hygiene was held in Chicago, March 13-18, under the auspices of the U. S. Public Health Service and the Illinois Department of Public Health. The co-operating agencies were the Chicago Department of Health, Illinois Social Hygiene League, and Chicago medical colleges and hospitals. Dr. Lee Alexander Stone, chief of the division of hospitals, social and industrial hygiene, Chicago Health Department, acted as permanent chairman. The conference consisted of physicians, social workers, bacteriologists, nurses, psychologists, psychiatrists, etc. It was decided to hold a similar conference next year in Chicago. Papers were read and lectures given on the Wassermann test, clinic management, and on all of the social aspects of venereal disease.

—The validity of the rules of the state department of public health for the control of typhoid carriers was upheld by the Supreme Court of Illinois in its recent decision in the case of *Barmore v. Dr. John Dill Robertson*, commissioner of health of Chicago. In this decision, the court dwelt on the importance of the protection of the public health and the necessity of employing modern scientific methods in securing such protection. The claim that Mrs. Barmore was unlawfully deprived of her liberty by her quarantine as a typhoid carrier was dismissed with the statement that the constitutional guarantee that no person shall be deprived of his liberty without due process of law was not intended to limit the exercise of the police power of the state, such as the enforcement of quaran-

tine regulations, by a board to which such power may be delegated by the legislature.

—The Chicago Tuberculosis Society has completed arrangements to entertain all members of the Illinois State Medical Society, Wednesday, May 17, 1922. Automobiles will leave the Congress Hotel at 9 a. m., going up the lake shore, through Lincoln Park, then to the Chicago Municipal Tuberculosis Sanitarium, where they will be the guests of this great institution. A clinic will be held in the amphitheater at 10:30 a. m. A free luncheon will be served at 12 o'clock noon. Return trip to the hotel will be made in time for the afternoon session. Registration of those wishing to enjoy this outing will be arranged at headquarters.

—The annual meeting of the Medical Society of the Missouri Valley will be held in St. Joseph, under the presidency of Dr. Paul E. Gardner, on September 21-22. The Buchanan County Medical Society at its last meeting appointed the following committee of arrangement: Dr. Floyd H. Spencer, chairman; Drs. H. W. Carle, Frank Hartigan, J. I. Byrne, H. S. Conrad, O. C. Gebhart, secretary. Members wishing to present papers should send in their titles to the secretary, Dr. Charles Wood Fassett, 115 East Thirty-first street, Kansas City, Mo.

—The executive committee of the Illinois Tuberculosis Association has decided to extend the clinical service in every county in the state in co-operation with local associations and societies; to extend and standardize the nursing service; to develop medical activities in schools with nutrition classes; to extend open air schools and health crusades. Three tuberculosis conferences are to be held within the year in three sections of the state. Joseph W. Becker announced that there are now active tuberculosis associations in ninety-eight of the 101 counties.

—The Alumni of Northwestern University Medical School will have a get-together meeting and banquet Wednesday evening, May 17, during the meeting of the Illinois State Medical Society. The hour and the place of the meeting will be announced later.

Deaths

GEORGE E. HALL, Chicago (license, Illinois, years of practice), died, March 10, aged 88.

FRANK M. AGNEW, Makanda, Ill.; Medical College of Ohio, Cincinnati, 1862; Miami Medical College, Cincinnati, 1866; member of the Ohio State

Medical Association; also a minister; died, March 10, at Carbondale, Ill., aged 81.

JOHN ANDREWS BALLARD, Galesburg, Ill.; Chicago Medical College, Chicago, 1868; formerly surgeon of the Burlington and Milwaukee Railroad, La Crosse, Wis.; veteran of the Civil War; died, February 18, aged 80, in St. Mary's Hospital, from heart disease.

NATHANIEL HOWARD BOONE, Chandlersville, Ill.; University of Nashville Medical Department, Nashville, Tenn., 1860; died, February 16, aged 85.

STANISLAUS BRZOWSKI, Chicago; Louisville Medical College, 1876; formerly health officer of Madison County, La., and received a gold medal from the Louisianians for his services during the yellow fever epidemic there; at one time superintendent of the Marine Hospital, Vicksburg, Miss.; died February 23, aged 78, at the home of his son, Louisville, Ky., from heart disease.

FRANK BYRNES, Chicago; Rush Medical College, Chicago, 1894; clinical professor of surgery. Bennett Medical College, Chicago; a Fellow A. M. A.; formerly on the staff of the Cook County Hospital; Medical College, and instructor in surgery at the Illinois Medical College, Chicago; died, February 1, at the John B. Murphy Hospital, aged 59, following an operation for carcinoma of the bladder.

HARRY N. CHAMBERLAIN, Chicago; Jenner Medical College, Chicago, 1904; was found in a hallway suffering from a fractured skull, and died, February 24, aged 42, at the Cook County Hospital, Chicago.

WALTER ELBIRTH CLAY, Mt. Carroll, Ill.; St. Louis College of Physicians and Surgeons, St. Louis, 1897; served during the World War, M. C., U. S. Army; died, February 26, aged 52, at a hospital in Chicago, from pneumonia.

JAMES LYMAN CONGDON, Riverside, Ill.; Rush Medical College, Chicago, 1865; died, March 3, aged 80.

CHRISTIAN P. K. DENCKER, Chicago; Rush Medical College, Chicago, 1906; a Fellow A. M. A.; died, March 12, aged 55, from heart disease following a motor accident.

WILLIAM HENRY FORD, Herrin, Ill.; St. Louis College of Physicians and Surgeons, 1898; served during the World War as captain, M. C., U. S. Army; died, February 14, aged 44, at Hollywood, Calif., from pneumonia.

SAMUEL A. GOTCHER, Chicago; St. Louis College of Physicians and Surgeons, St. Louis, 1901; died, March 6, from tumor of the brain, aged 55.

JOSEPH LANE HANCOCK, Chicago; Chicago Medical College, 1888; member of the Illinois State Medical Society and the Chicago Academy of Medicine; fellow of the Entomological Society of London, England; member of the American Association for the Advancement of Science; also an artist and naturalist; author of *Tettigidae* of North America, *Tettigidae* of Ceylon and other works; died, March

12, at the Michael Reese Hospital, aged 57, from heart disease.

McMORRIS HOUSTON, Joliet, Ill.; Hahnemann Medical College and Hospital of Chicago, 1884; formerly on the staff of the Silver Cross Hospital, where he died, February 6, aged 74, following an operation.

GEORGE C. HOWLETTE, Atkinson, Ill.; Chicago Homeopathic Medical College, 1880; died recently, aged 64.

THERON JAMES KINNEAR, Springfield, Ill.; Northwestern University Medical School, Chicago, 1904; a Fellow A. M. A.; specialized in ophthalmology, otology, laryngology and rhinology; died, February 28, aged 45, at St. John's Hospital, following an operation for a furuncle.

HARRISON WILLIS MALTBY, Chicago; University of Illinois College of Medicine, Chicago; a Fellow A. M. A.; died, January 17, aged 45, from diabetes mellitus.

WILLIAM STERLING MAXWELL, Chicago; Medical Department of the University of Wooster, Cleveland, 1891; on the medical board of the Order of the Sons of St. George; served during the late war as medical examiner for the British Army; on the staff of the Lakeside Hospital, where he died, March 9, aged 57, from lobar pneumonia.

DUPUYTREN C. L. MEASE, Freeport, Ill.; Rush Medical College, Chicago, 1884; member of the Illinois State Medical Society; president of the Freeport Trust and Savings Bank and the Stephenson County Telephone Company; died, February 6, aged 60, at Fort Myers, Fla., from heart disease.

JOHN OREL MEYERS, Chicago; Bennett Medical College, Chicago, 1912; member of the Illinois State Medical Society; died, February 22, aged 49, from heart disease.

EWING VAN DARLAN MORRIS, Galesburg, Ill.; Rush Medical College, Chicago, 1884; a Fellow A. M. A.; president of the Galesburg Sanatorium; died, February 11, at St. Mary's Hospital, from pneumonia, aged 63.

JOHN B. NESBITT, Sycamore, Ill.; Northwestern University Medical School, Chicago, 1897; member of the Illinois State Medical Society; died, February 28, aged 48, from pneumonia.

JOHN N. PHIFER, Chicago; St. Louis Medical College, St. Louis, 1878; practiced in Shumway, Ill., for forty years; died, February 26, at the Washington Park Hospital, aged 73, from uremia, following an operation.

S. ELLEN ROURKE, Lincoln, Ill.; Keokuk Medical College, Iowa, 1896; formerly a school teacher; died, February 9, at St. Clara's Hospital, aged 55.

JAMES J. SINCLAIR, Chicago; Bennett College of Eclectic Medicine and Surgery, Chicago, 1883; College of Physicians and Surgeons, Chicago, 1888; died, March 12, aged 66, from heart disease.

H. F. WHITE, Mount Vernon, Ill.; St. Louis Medical College, St. Louis, 1859; died, January 2, aged 87, at Mountain Park, Okla., from heart disease.

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Original Articles

AIDS TO DIAGNOSIS IN MEDICINE*

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LOUISVILLE, KY.

We approach the subject of this paper with some misgivings, as at the outset we must disclaim any originality or the outlining of any new discoveries. We are attempting rather to call to mind aids to diagnosis which we feel are often overlooked or neglected.

We think the medical profession, both general practitioner and specialist, might be condemned for laxity in methods and a tendency to the development of a routine leading to "snap" diagnosis. The treatment of patients without adequate investigations is unquestionably in vogue.

We maintain that a careful, painstaking written report of the personal and family history, followed by a thorough physical examination of a patient, is a *sine qua non*, before an opinion can possibly be expressed in regard to the individual patient, proper advice given or adequate treatment instituted.

Hughlings Jackson in 1870 pointed out that the study of the individual patient comes before the study of the disease, for a disease is rarely typical but is modified by the characteristics of the patient.

In the effort to standardize hospitals the greatest stress has been very rightly laid upon case histories, for they are certainly the basis for the intelligent and scientific care of the patient. With an average clientele, it is beyond possibility for any practitioner to remember the details of the illness or disability of any patient for any length of time, and entirely impossible for scientific reports to be made with clinical data to support them unless careful and painstaking histories

are taken and as careful physical examinations made and recorded. To those who are content with merely keeping a copy of prescriptions written, or who record in a day-book or visiting list some sign indicating the service rendered and charge to be made, we urge the adoption, at once, of hospital methods of case history records. A trial of the complete method will certainly convince the doubters of the wisdom of this routine.

The younger generation of physicians is thoroughly grounded in the methods of history taking and the importance of accurately kept records, to the physician, to the hospital and to the patient.

During the sessions of the school, Medical Department of the University of Louisville, the histories and physicals of all new patients in the City Hospital wards are taken by the students and when corrected by the staff or instructors, are typed and made part of the permanent record of the hospital. A duplicate of the history and physical is filed in the library—like diseases and conditions grouped, as a reference library for new classes, and the original is returned to the student for his files. This relieves the interne of much routine work and gives him more time for other work on the ward and for special laboratory investigations.

THE CLINICAL HISTORY

The clinical history consists of five parts, and is not complete unless all five headings are dealt with:

1. *Anamnesis*, or an account given by the patient or friends of the life of the patient previous to the time of the examination. Leading questions should not be asked until after the patient has told his story.

2. *Status Praesens*. This includes the physical, chemical and biologic examination made by the physician. We wish it were possible to emphasize forcefully enough the importance of the education of the special senses in their application to physical diagnosis, and the correlation of these findings by an active, discriminating brain. The

*Read before the Tri-State District Medical Society, Milwaukee, Wis., Nov. 1921.

outcome of this is the development of a clinical sense, that ability which comes with training which enables one to place a precise value upon symptoms or sign. Through the aid of this clinical sense one is able to arrive at a diagnosis by the differential, direct or indirect method.

3. *Clinical Impressin.* The recording of one's impression of a case, even though a positive diagnosis is not or cannot be made, is an excellent discipline for every practitioner, be he surgeon or internist. Pre-operative diagnoses or impressions are as important, perhaps more important, than an ante mortem diagnosis in a purely medical case.

4. *Catamnesis.* This is the subsequent history of the patient including notes on the course of the disease, the kind of treatment used and the results thereof.

5. *Epicrisis.* This is the final judgment of the case with discussion of all findings. If the surgical or autopsy findings are available they should be summarized under this heading.

Medical literature has contained many articles of late, emphasizing the tendency of the profession to neglect the art of physical diagnosis. We feel that in a measure this criticism is just, though we do not believe, as has been said by one author, that physical diagnosis is a lost art. This criticism is borne out by the questions asked by most life insurance companies in their medical examination blanks, "Has this examination been made without removing the clothing covering the chest?" How can a chest examination be made through one or two shirts? Yet it is constantly being done.

Inspection, palpation, percussion, auscultation, mensuration! How pregnant with meaning if properly applied. Keeness of vision, seeing, feeling, and hearing understandingly can only be acquired by constant application, thorough mastering of the normal, and its comparison with the abnormal. We are constantly endeavoring to impress this fact upon the younger clinicians in their teaching, that the healthy student himself is the best clinic possible for the sophomore student upon which to begin his practical work in physical diagnosis. The student must first be taught physical diagnosis from the physiologic standpoint, normal breath sounds, normal heart sounds, normal heart dullness, normal resonance, normal chest measurements, etc. The sounds

and conditions produced by pathological conditions can then be more easily recognized. Closer co-operation between the so-called pre-clinical branches and the clinical in medical schools must be had. The well-rounded general practitioner is the product we are endeavoring to send out from our medical schools, not specialists in any branch.

The use of the special senses, with instruments of precision, and by chemical, bacteriological and biological methods is rapidly bringing medicine into the domain of a science. It is being said that only the special senses and instruments of precision are necessary in diagnosis, that the laboratories are not needed, that they are refinements for which the patient must pay but add little to the outcome of the case. We do not believe it necessary to combat this idea in the presence of this audience but rather to briefly call attention to certain of the diagnostic aids, which can and should be used by the practitioner in his daily work. Many general practitioners do not use these aids, fearing they need too elaborate an equipment and for this reason do not familiarize themselves with method or technic. As an illustration, a group of eight practitioners recently in attendance at a City Hospital clinic, not one knew anything of the phenolsulphonephthaline test for kidney efficiency or had ever seen it applied. These men had missed using a valuable aid in the estimation of kidney efficiency, and their patients the benefit of this procedure. This test is so easily done and at so little inconvenience to the patient, that it should be used as a routine in all patients in whom disordered function of the kidney is suspected. It is a routine procedure in the Louisville City Hospital and is considered a most valuable diagnostic aid.

Gerstley¹ has sounded a note of warning against too great emphasis being laid upon pathology in reasoning in regard to the epicrisis of a case, to the exclusion of the physiologic point of view. He states, "To the medical man of the future, far more important than the problem, 'What are the pathologic findings in this intestine, in this heart, in this kidney?' will be the diagnosis, 'What is the tolerance of this intestine to food, the capacity of this heart or this kidney for work?' The community will demand of us that we apply all our skill in keeping the child at play or at school, the adult at work. This physiological point of view

1. Jour. A. M. A., June 11, 1921. P. 1633.

has given rise to a change in our conceptions of therapy infinitely more important than anything developed from the pathologic standpoint."

Functional Tests of the Kidneys. This is an introduction to the mention of the physiologic or functional tests of the kidney which are so little used. The value of the concentration urine test is too little appreciated. It is not necessary to put a patient upon the elaborate Mosenthal or other diet, but carry it out with the patient living his usual routine as to food, drink, exercise, rest, etc. All fluid intake is carefully measured, recorded and totaled for the periods from 8 a. m. to 8 p. m., and from 8 p. m. to 8 a. m. The day urine is passed at two-hour intervals and saved in separate bottles, and the night urine saved in one specimen. The specific gravity, amount, and reaction of each specimen is carefully taken and recorded. If there is a fixation of the specific gravity of less than 9 points, or an intake of 25 per cent more fluid than the total output of urine, or if there is a nycturia, or a larger amount passed during the night than during the day, there is a serious functional disturbance of the kidney. This may be found in the absence of albumin and casts. This tells us what the kidneys are doing, their capacity for work. If in addition to this there is a reduction in the percentage of phenol-sulphonephthalein recovered in the one and two-hour specimens we have learned more than can be told from a dozen chemical urinalyses.

These are tests which can be made by any one and should be a routine in all patients in whom the kidney function is questioned. There is absolutely no difficulty in obtaining the co-operation of the patient in carrying out the directions for these functional tests in detail. The patient realizes that the results are of vital interest to him and there is no trouble in obtaining his fullest co-operation. Emerson has done excellent work in his studies of nephropathies and his latest report² calls attention to the necessity for a study of the temperature and albumin concentration curves in chronic nephritis,—as all patients with chronic nephritis show, at times, slight rises of temperature and definite changes in the blood and urine.

Preventive medicine is economically important. Emerson points out (loc cit) that the kidneys are the third organ of importance as a cause of

death, and regular examination of kidney function in the apparently well can not be too forcefully emphasized. Do not be content with a chemical and microscopic examination of the urine, but learn the capacity of the kidneys for work.

Blood Chemistry. Of what value is the newer blood chemistry as originated by Folin and others? Estimation of the retention of nitrogenous products in the blood is of very great value in the summing up of a case, especially as to prognosis. Total nitrogen, urea nitrogen, urea, and creatin in excess in the blood corroborates the functional test and clinical findings. To illustrate: A graduate nurse on private duty complained to the physician in charge of the patient she was nursing, that she did not feel well, she had a temperature, headache and her feet were swollen. He asked for a specimen of urine, and it was almost solid with albumin after boiling. She came to the hospital and was admitted to the metabolic ward under Doctor John Walker Moore, Professor of Research Medicine. She gave a history of a recent attack of tonsillitis, the hospital admission diagnosis being acute toxic nephritis, which any tyro could have made. The following is a resume of her case:

Aged 28. Entered Hospital January 17, 1921. Chief Complaint, swelling of feet, hands and face; drowsiness and headache; decreased urinary output. On January 9 had a chill, followed by swelling and soreness at angle of right jaw, with pain over right antrum accompanied by discharge of thick bloody pus, which persisted three or four days and gradually subsided. Had an abscessed tooth, which was extracted five months ago, with three more found abscessed and later extracted.

January 17, 1921, Blood Pressure 130/70.

URINALYSES

January 17		
Color	Amber	
Appearance	Very turbid—smoky	
Specific Gravity	1043	1007
Albumin	Plus 4. Solid cake	Less
Microscopical	Large number fine and coarse granular casts. Leucocytes and Red Blood Cells	

BLOOD CHEMISTRY

January	17	19	20	22	24	26	Feb. 8	
Total non-protein nitro- gen	61.8	98.4	81.	68.	42.	31.2	32.6	
Urea nitrogen	37.5	51.7	49.	39.	21.	13.	14.3	
Creatinin	6.	6.	5.	4.4	3.	2.9	1.4	
Uric acid	5.					4.5		
Plasma bicarbonate...	51.9	48.5		53.2		58.		
Aleosolar Co	32.5	Vol. %						
Blood pressure	130/72	115/70						
January	18	19	20	21	22	23	26	30
Fluid intake, c.c.	1180	1090	1090	1165	1010	773	1000	800
Urinary output, c.c. ...	264	369	602	1120	1007	1718	1065	711

2. Journal A. M. A., Vol. 77, No. 10.

6 points variation in specific gravity in two hour specimen on the 21st.

8 points difference in specific gravity in 2 hour specimen on the 30th.

On February 12, the patient was discharged. The kidneys were able to concentrate, fluctuating twelve points daily.

We believe the blood chemistry findings were of the greatest aid in the care of this patient during the acute stage, and the subsequent treatment much more intelligently carried out with the blood chemistry known than if it had not been done.

We would specially emphasize the importance of blood chemistry, as a routine of surgery as a means of ascertaining the operative risk to the patient. This is specially true in genito-urinary surgery. We believe some fatalities in prostatic surgery might be avoided if careful blood chemistry examinations were made.

The finding of creatinin above normal limits is of especial prognostic importance, especially in acute surgical conditions of the genito-urinary tract.

In this connection we would state that a regular part of the training of undergraduates is an attempt to teach them biochemistry in their Junior year and a practical application of these methods at the bedside in their Senior medical work. The general practitioner need not fit up a laboratory for the carrying out of these tests if he is too busy, as laboratories are available where they can be carried out, if he will send to them a specimen of oxalated blood. He should, however, familiarize himself with the normal limits of the various nitrogenous products and the significance of their increase.

The following are the upper normal limits of the various blood chemistry findings:

Total non-protein nitrogen—25-35 mg. per 100 c.c. blood.
Urea nitrogen—12-16 mg. per 100 c.c. blood.
Creatinin—1-2.5 mg. per 100 c.c. blood.
Uric acid—1-2.5 mg. per 100 c.c. blood.
Plasma bi-carbonate—54 to 77.
Alveolar CO_2 —40 to 45 Volume %.
Blood sugar—80-120 mg. per 100 c.c. blood.

Pollinosis. No class of sufferers, perhaps are more appealing, than those subject to pollinosis or food idiosyncrasies, resulting in bronchial asthma, hay fever, the urticarias, eczema, angio-neurotic edema, erythemas, diarrhea, etc.

Much valuable original work has been done in the study of anaphylaxis and allergy by many observers, yet the average general practitioner

seems to think but little of the possibilities of this field of endeavor.

Bronchial asthma has long been considered as hopeless and incurable until these studies were begun and sufficient evidence is presented by many observers to warrant the statement that in fully 50% of cases the cause can be determined and successful treatment instituted.³

There is no difficulty in diagnosing an attack of bronchial asthma, so typical is the history and clinical picture of obstructed respiration, character of breathing, auscultatory signs, etc. Looking at the condition from the physiologic standpoint its etiology becomes apparent. A foreign protein, acting upon abnormally sensitive nerve fibers in the mucous membrane of the upper respiratory tract, through the nerve centers cause a spasm of the muscles of the large and small bronchi,—resulting in a typical attack of bronchial asthma. The irritation may be confined to the nasal mucous membrane causing typical suffusion, sneezing, burning, lachrymation and nasal discharge of a so-called hay fever attack.

Differentiated from the typical bronchial asthma may be mentioned the so-called asthmatic bronchitis, due not to protein irritation but to a bacterial infection either direct or to the bacterial protein, engrafted usually upon a more or less chronic bronchial irritation, so-called cold or rhinitis. This type should be borne in mind and ruled out if results from protein therapy are to be expected.

Protein sensitiveness may be demonstrated by the intradermal test or the cutaneous test, with every argument but especially that of safety, for the cutaneous method.

The flexor surface of the forearm is bared and cleansed. Small cuts are made with a sharp scalpel, deep enough to draw serum but not to cause bleeding. On each cut is placed a protein dissolved in a drop of 1-10 normal sodium hydroxide solution. A control upon which the hydroxide solution but no protein is placed, is used for comparison.

In from ten minutes to half an hour the proteins are washed off and the reactions read. A positive reaction consists in the formation of a raised, urticarial wheel surrounding the cut which must measure 0.5 cm. or more in diameter. A

3. Walker Oxford Looseleaf Medicine.

wheel less than this in diameter is considered suspicious but not positive—and those larger are indicated as one, two or three plus.

Patients suffering from asthmatic bronchitis do not respond to the ordinary protein reaction though they may to the bacterial protein. A careful inquiry into the habits of patients regarding diet should be made in case of a modified reaction or an entirely negative reaction. Certain articles of diet, which are eaten regularly, but sparingly eaten, may not cause evidences of allergy, but the eating of a large amount of the offending material may cause an attack.

Duke⁴ reports food allergy as an occasional cause of abdominal pain. He reports cases in which intra-dermal skin test showed reactions to the same food which had apparently caused the abdominal pain or indigestion. With the pain were associated nausea and vomiting, and occasionally gaseous distension, diarrhea with mucus and less frequently purpura, edema and hives. Duke explains the pain and other symptoms as due to the allergy caused by contact between the sensitive gastro-intestinal mucosa and the food protein.

Many proteins have been isolated and are available for diagnostic purposes. The following are recommended specially to be used routinely: horsehair or dandruff; cat hair; feathers; the pollen of sunflower, rose, June grass, red top and ragweed; egg; milk; cereals; meats; chicken; potato. Our experience with the bacterial protein has not been satisfactory, although Walker and Goodale report ten per cent. positive reactions in sixty patients suffering with asthma.

After the diagnosis of the offending protein the specific protein treatment should be employed, the endeavor being to desensitize or render the patient immune to the offending protein. In food idiosyncrasies the omission of the food found as a cause or strongly suspected, as in the case of suspicious skin readings, is usually sufficient. Where there is bacterial pollen or animal emanation protein irritation, the inoculation by subcutaneous injection of the offending protein should be recommended. The injections should always be controlled by skin tests of the strength of the solution to be injected. That is to say, if there is a reaction to 1 to 5,000 dilution, the first injection

should be of a solution not stronger than 1 to 10,000.

The treatment should be begun sufficiently early in seasonal allergy to complete the course of treatment before the usual time of the attack. Otherwise serious anaphalaxis might result.

BASAL METABOLISM

The subject of endocrinology has been a most alluring one. There are, however, certain doubters. Dr. Cushing states:⁵ "We find ourselves embarked on the fog bound and poorly charted sea of endocrinology. It is easy to lose our bearings for we have, most of us, little knowledge of seafaring and only a vague idea of our destination. Our motives are varied. Some unquestionably follow the lure of discovery; some are earnest colonizers; some have the spirit of missionaries; and would spread the gospel; some are attracted merely by the prospect of gain and are running full sail before the trade wind." Many other observers are optimists and judging by their writings are better seafarers than those referred to above.

Perhaps one reason for this difference of opinion is that no two persons suffering from endocrine disorders present the same symptoms, and the difficulty of recognizing in those cases of polyglandular intoxication in which endocrines predominate.

The thyroid gland has been more closely studied, perhaps, than any of the internal secretory glands. One of the main functions of the thyroid gland is to regulate the intensity of combustion in the body.⁶ Two general functional disorders of this gland are recognized,—hyperthyroidism, or Graves' or Basedow's disease, and hypothyroidism or myxedema. In the former basal metabolism is increased, in the latter it is decreased.

When a patient presents the typical symptoms of a thyrotoxicosis the condition can be diagnosed by anyone, but there are few in whom all the cardinal symptoms are found. It is in those cases which present but few of the cardinal symptoms and which the general practitioner usually sees first and diagnoses as neurasthenia, that the aids to diagnosis must be used.

The symptoms which should be borne in mind in the diagnosis of a case of thyrotoxicosis are

4. Archives Internal Medicine. 28, 151. (Aug. 1921.)

5. Journal A. M. A., Vol. 76, No. 25, p. 1721.

6. Means: Journal A. M. A., Vol. 77, No. 5.

persistent tachycardia, enlarged thyroid, fine tremor, exophthalmos, widening of the slits between the lids, dissociation of the movements of the eye ball and those of the upper lid, inability to maintain convergence of the eyes, profuse sweating, watery and painless diarrhea, rapid and shallow respiration, weakness and other signs of myocardial degeneration, lymphocytosis, insomnia, loss of flesh with good appetite.

Thyrotoxicosis seems to exert its influence principally upon the autonomic nervous system, made up of the sympathetic system and the vagal autonomic system.

The Goetsch or epinephrin test for determining thyrotoxicosis is unstable and unreliable, as positive reactions are found in so many other conditions than thyrotoxicosis. Epinephrin solution is injected intramuscularly, and its effect upon the pulse rate, blood pressure, muscular tremor and subjective nervous symptoms are carefully noted over a given period of time.

In certain cases there is a predominance of the sympathicotonia, in others the vagatonia; in certain cases there is an involvement of both systems. In the patient presenting the mixed type of symptoms the diagnosis is frequently in doubt and in these the determination of the basal metabolic rate is a most valuable diagnostic aid.

The chemical transformation of the products of digestion within the body, to its demands of nutrition, constitutes metabolism. Total metabolism may be expressed in terms of energy, and the heat unit, or large calorie, is commonly used for this purpose. The large calorie is the amount of heat required to raise one kilogram of water to one degree centigrade of temperature. Following the lead of Lavoisier, workers in this field of investigation, have been able to develop the fact that heat production can be measured by the oxygen intake and carbon dioxide output, thus indirect calorimetry.⁷

Several types of respiratory apparatus are in use in indirect calorimetry; the closed circuit apparatus of the portable unit type devised by Benedict; the smaller portable unit type of Jones, and the gasometer type using Haldane method of gas analysis.

Basal metabolism is the heat production of an organism at complete muscular rest after a fast-

ing period of 14 to 18 hours. The rates vary with age, sex, height, weight, food, muscular activity, temperature of patient, certain diseases, drugs, etc.

Disorders of the endocrine system affect the basal metabolism decidedly causing an increase or a decrease according to the glands affected. Involvement of the thyroid gland in which there is an increased activity and secretion causes an increased rate with great regularity. Very severe cases show a plus 75 per cent or more, severe cases plus 50 per cent or more and moderately severe cases show a plus 50 per cent or less.

Engelbach has shown that an involvement of the posterior lobe of the pituitary gland causes an increased metabolic rate. Fevers, carcinoma, pernicious anemia, cardiac diseases, lymphatic leukemia, pulmonary tuberculosis and certain drugs, such as thyroid extract, caffeine, adrenalin, cause an increased rate.⁸

The estimation of the basal metabolic rate is a functional test of the thyroid gland and can be looked upon as a diagnostic aid of the greatest value. As McCaskey has demonstrated, in certain conditions, such as psycho-neurotic disturbances and those presenting circulatory disturbances, as bradycardia, tachycardia, cardiac myasthenia and certain arrhythmias, fine tremors, hyperidrosis, loss of weight, slight temperature disturbances and leucocytosis can be definitely differentiated from hyperthyroidism. Cases with symptoms of psychoneurotic instability and tachycardia, with or without thyroid enlargement, may be difficult to diagnose and a basal metabolic reading is of the greatest assistance. In highly nervous individuals, however, the first reading may show a slight increase, this being due to the muscular instability of a nervous person, rather than to a thyrotoxicosis. In these patients a second test should be made. Basal metabolism is of great value also in diagnosing a simple obesity from an obesity of endocrine origin.

Readings between a minus eight to a plus ten per cent may be considered within normal limits.

Ill fitting mouth pieces, nose clamp, etc, has made it necessary for one of us (Dr. Moore) to invent a combination nose and mouthpiece, which enables the patient to breathe with perfect freedom and great regularity. As the original mouth

7. Basal Metabolism: John Walker Moore. Ky. State Medical Journal.

8. Basal Metabolism. Dr. John Walker Moore. Ky. State Medical Journal.

piece and nose clip causes the patient to be much irritated, an increase in the reading of the basal rate of ten occurs.

Of what value, then, is the basal metabolic rate?

The diagnostic value of basal metabolism in endocrine disorders is no less important than its value in determining the proper method and outline of treatment. In brief, it may be said, in ductless glands disorders the basal metabolic rate determines whether the method of treatment used has been beneficial, or of no value, or even harmful. For instance, in goiter therapy, it serves as no other means at our disposal in indicating the effect of certain lines of treatment. In management of hyperthyroidism, whether it be carried out by means of surgery, x-ray, or what not, it offers a definite means whereby the thyrotoxicosis can be measured from time to time, thus enabling the physician to direct more intelligently the proper line of treatment.

In hypothyroid cases, whether it be of a congenital or of a post-operative type, our line of thyroid feeding can be accurately determined by ascertaining from time to time the metabolic rate. In hypopituitarism it is of value in diagnosis and guiding treatment.

The question is often asked, is the metabolic rate a measure to the patient's ability to withstand thyroidectomy?

This question should be answered emphatically no. The rate gives information of the degree of thyroid intoxication, but in no way does it signify that the patient would be able to stand the superimposed stress of operation. We do know, as has been pointed out by Boothby, that the higher the metabolic rate the greater the stress to which the patient is being subjected, and the greater the consequent reduction in his reserve power. He states as a general rule that preliminary ligations are less frequently indicated with patients having rates below plus 50 per cent, and very rarely with patients having rates below plus 40 per cent. We agree with this author that the mortality of thyroidectomy is lower in cases with basal metabolic rates below plus 50 per cent, but we do not feel that we can concur in the statement that preliminary ligation is mainly indicated in cases with rates below plus 40 per cent. If the mortality rate is reduced by preliminary ligation, why not ligate in all cases preliminary to thyroi-

dectomy? It is found not only in our series, but also in most all other reports, that there is a mortality rate in patients whose basal metabolic rate is below plus 40 per cent.

The basal rate does not tell us the duration of thyroid disorders, nor is it an index to myocardial degeneration. Thus, a patient in a state of remission may have a very slightly increased rate; but as a result of previous thyroid exacerbation, his myocardium might have suffered hypertrophy and degeneration with a marked reduction of reserve forces, even to the point of decompensation. It is obvious that in such a case the metabolic rate would not serve as an index for an operative risk. So we conclude that in cases with a rate below plus 40 per cent. in which thyroidectomy is contemplated, the decision should not rest upon the basal rate alone, but upon surgical judgment.

The Roentgen Rays. The Roentgen rays offer us one of our most valuable aids in diagnosis. Physical findings are confirmed by them and often they reveal unsuspected pathology. By means of the rays the internist is able to locate various foci of infection, to verify the outlines of the heart and visualize various chest conditions, especially pleural effusions, pneumonias and tuberculosis. McGowan states "In the diagnosis of tuberculosis in children, the Roentgen ray is a most valuable and reliable evidence." Rosenblatt writes, "It is commonly accepted that the Roentgen ray usually shows structural changes much earlier than physical examination, and in many cases where the physical examination is negative, the roentgenogram is positive."

With the aid of the fluoroscope, barium meal and enema one is able to demonstrate esophageal gastric and intestinal pathology. With the fluoroscope also, the size of the heart and aorta, the excursion of the diaphragm, mediastinal and lung conditions are usually seen clearly. By no other method is it possible to visualize suspected pathology.

By means of intraperitoneal injection of gas we are able to outline all abdominal and pelvic organs, viz: diaphragm, liver, spleen, kidneys, uterus, tubes and ovaries, and in conjunction with oxygen enema the colon is clearly shown. Adhesions to the diaphragm, adhesions of the intestinal coils to the parietal peritoneum, omental fixation, fibromyomata of the uterus, ovarian tu-

mors, enlarged livers and gall bladders can be made out by the intraperitoneal injection of gas. One of us (Dr. Turner) in his work at the Louisville City Hospital, as yet unpublished, has not only been able to show the normal uterus, tubes and ovaries, but the gravid uterus, showing its gradual increase in size and appearance of fetal bones. Positive diagnosis of pregnancy has been made as early as three months. It has been found of service in certain doubtful cases to diagnose presentation and position.

Danby and others by intra-ventricular and intra-spinal injection of air have been able to demonstrate the cerebral ventricles, and by changed relations to localize intra-cranial neoplasms, and to differentiate the different forms of hydrocephalus.

Orendorg has reported rather important observations by means of direct peritonoscopy. By these direct observations within the peritoneal cavity, he and others have been able to examine the under surface of the liver, gall bladder, peritoneum and female pelvic organs. The value of this direct examination over an exploratory laparotomy is evident.

The value of the ray to the orthopedist is paramount, for in no other way is he able to tell as accurately the position and severity of fractures, the results of his manipulations in bringing the fragments in correct apposition and alignment, and the various pathological bone conditions.

To the genito-urinary surgeon the ray offers the only positive evidence of renal calculi, and verifies his suspicion of ureteral and vesical calculi.

By the injection of certain solutions impenetrable by the rays, we are able to determine the extent of infection of the pelvis, of the kidney, vesical diverticulae, tumors, dilated and thickened ureters, etc.

Functional Diagnosis of the Heart. William Harvey writing in the seventeenth century, states that "the heart is the beginning of life: the sun of Microcosm, even as the sun in his turn might well be designated the heart of the world; for it is the heart by whose virtue and pulse the blood is moved, perfected, made apt to nourish, and is preserved from corruption and coagulation; it is the household divinity which discharging its function, nourishes, cherishes, quickens the whole body,

and is indeed the foundation of life, the source of all action."

Perfect functioning of the heart would imply a state in which all the qualities of the cardiac structure are normal and coordinate. If there is any derangement of the qualities, the question is then asked, to what degree does the disturbance affect the efficiency of the whole organ.

The recognition and significance of cardiac disorders can usually be arrived at by clinical study combined by the use of various technical methods.

The clinical symptoms and physical signs, though of utmost importance in the study of cardiac conditions, probably do not indicate the exact level of cardiac efficiency. It is for this reason that technical methods as the sphygmograph, polygraph and electrocardiograph have proven themselves valuable aids.

Polygraph. It must be admitted that a wonderful advance in cardio-vascular diagnosis has come through the use of such instruments as the polygraph and the electrocardiograph.

Long before the electriccardiograph had been perfected, workers, as Mackenzie, with the polygraph, showed characteristic variation of the a, c and v waves, which made it possible to interpret definitely the various cardiac arrhythmias.

That the "a" represents the beginning of auricular systole, the "c" the beginning of ventricular contraction and the drop of the v wave, the opening of the tricuspid valves, cannot be denied, even in the light of the electrocardiograph findings. The polygraph, therefore, is invaluable in diagnosing the various cardiac arrhythmias, and owing to the compactness of its mechanism, and the simplicity of its manipulation, the physician is no longer justified in saying that this or that patient has a cardiac arrhythmia without determining its type.

Electrocardiograph. The electrocardiograph may be said to be in its infancy. Nevertheless, workers with this instrument of precision, have brought to light many invaluable phenomena taking place during the cardiac actions. Not only can the various types of arrhythmias be accurately established, but the preponderance of one ventricle over the other when present, is almost always clearly depicted. Special emphasis should be laid upon the electrocardiographic changes that are associated with myocardial involvement. Such conditions as bundle branch block and arboriza-

tion block, may be shown in an electrocardiogram long before any serious clinical symptoms have developed.

The results of the study of the cardiac impulse along with x-ray and post mortem findings, are promising; nevertheless, much data is yet necessary to make this field a useful adjunct in cardiac diagnosis.

Of the less technical methods may be classed blood pressure and muscular efficiency tests.

The value of the former method is familiar to all of us, and will not be dwelt upon. Of the latter, many methods as hopping, climbing steps, walking up inclines, dumb-bell exercises, etc., have been advocated. While all of these methods are valuable aids in testing the cardiac reserve power, in a beginning stage of weakened myocardium, nevertheless they fall short of their purposes in the advance stages of myocardial insufficiencies.

Gall Bladder Drainage. Direct drainage of the gall bladder by the Lyon Meltzer method is one of the distinct advances in the diagnosis and treatment of disease of the gall bladder and ducts. Meltzer's suggestion that magnesium sulphate solution injected directly into the duodenum has the effect of relaxing the common duct sphincter and causing a contraction of the gall bladder, thus emptying it of its contents,—Lyon proved clinically. Lyon states, "We can make a differential diagnosis between cholecystitis, cholethiasis, and choledochitis in a more scientific manner than by any other method yet advanced."

With a patient fasting for twelve or fourteen hours, a duodenal tube with metal tip is swallowed, the stomach contents aspirated and the patient swallows the tube to the third marking. The patient lying on the right side the tip passes into the duodenum in fifteen to twenty minutes, evidenced by the tug and the character of the fluid aspirated. This aspiration may be done by the vacuum bottle or by the syringe. The first fluid is usually bile free and of syrupy consistence. Seventy-five c. c. of a twenty-five per cent. solution magnesium sulphate is injected through the tube or allowed to flow by gravity. Lyon describes the fluid obtained, first from the common duct light in color, second from the gall bladder, thick and dark—third from the liver itself, clear lemon yellow.

Repeated drainage by this method has been found most beneficial in a number of conditions,

so-called "biliousness," recurrent headaches with nausea, chronic indigestion with attacks of colic, chronic constipation, catarrhal jaundice, gall stones, etc.

We might go on indefinitely—there are so many diagnostic aids which could be mentioned but one time is limited and we feel we have mentioned the principal ones which to our mind are too little used.

THE NEWER METHODS OF CESAREAN SECTION*

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The new methods of Cesarean section, in my opinion, should almost completely displace the old classic operation. The old classic Cesarean which we have tried for many hundreds of years to perfect, should be limited to a very few cases of abdominal delivery. We have not found it possible to bring it to perfection nor near it. The new operations are much nearer perfection. I have suggested the name—laparo-trachelotomy for them.

The old classic operation has (1) too high a mortality; (2) too high a morbidity; (3) it leaves too many adhesions; (4) it is not infrequently followed by rupture of the uterus in subsequent pregnancy and labor; (5) it must be limited to clean cases if it is to be safe.

Attempts to Improve the Classic Cesarean Section. Attempts to improve the classic Cesarean section, to make it adaptable to the neglected cases, failed until 1906, in which year Frank of Bonn, disinterred the old extra peritoneal methods. He opened the abdomen just above the pubis, united the peritoneum of the uterus to the peritoneum of the abdominal wall, thus shutting off the general peritoneal cavity, and delivered the child through the almond-shaped space thus provided. Later Sellheim attempted to push the peritoneum upward from off the bladder, as was recommended by Physick in 1824, which thus freed the space over the cervix and lower uterine segment, through which he delivered the child.

Many operators, mostly continental, developed these ideas, and now there are about twenty different procedures. All these methods of performing the operation depend on certain changes

*Read before Chicago Medical Society.

which occur during pregnancy and labor in the relations of the cervix and lower segment of the bladder and vesical peritoneum.

We know that during pregnancy the peritoneum over the lower uterine segment and bladder becomes very much softened and loosened from its base. It also hypertrophies under the stimulation of pregnancy. With the development of the lower uterine segment and cervix in the latter weeks of pregnancy and particularly in labor, the muscle of the cervix is drawn away, upward and outward, from the bladder attachment. The vesico-uterine cul de sac is usually obliterated. The peritoneum is also drawn upward at the sides of the bladder in the neighborhood of the round ligaments. At the same time the mobility of the peritoneum on the subjacent structures becomes much increased. It is therefore possible after incising this portion of the peritoneum to push the bladder off of its cervical attachments with great ease, and to expose an area of the cervix and lower uterine segment large enough for the delivery of the child without encroaching on that portion of the peritoneum which is opened in the classic Cesarean section. Of the twenty or more operations that have been invented, only two seem likely to obtain recognition.

All these methods may be divided into two classes: first the intraperitoneal, or perperitoneal, and second, the extraperitoneal. In the intraperitoneal operation, the abdomen is opened above the pubis, and the peritoneum over the cervix, near the bladder, is incised and loosened from its bed. By means of closely set continuous sutures, or by clamps, the parietal and visceral peritoneal layers are united. Some operators omit this part and protect the general peritoneal cavity by packing sponges around the uterus. In clean cases no more is necessary. The lower uterine segment and cervix are then incised, the child delivered, the placenta following, then the uterus is closed and the double layer of the peritoneum also reunited. The general peritoneal cavity thus is temporarily removed from the field of operation, and infectious matters such as meconium, liquor amnii and blood, are not permitted to spread over it. Some operators cut the line of temporary peritoneal sutures, and reunite the individual layers of peritoneum. Others do not do this, but sew the two layers together. Sellheim sews the uterine wall to the skin and leaves the wound open to drain, and calls such a delivery one through a

utero-abdominal fistula. Among the transperitoneal Cesarean sections, one of the three invented by Sellheim seems to possess most advantages. I have modified it in two important particulars and use it routinely in clean as well as in suspected cases.

Of the extra peritoneal methods, that of Latzko is the best. In Latzko's operation the incision is made either transversely or longitudinally, just above the pubis. The peritoneum is pulled out of the pelvis, the bladder is pushed off of the cervix to the right; and beneath the vesico-uterine fold which has been pushed up toward the navel, a bare space of cervix and lower uterine segment is provided, through which the child is delivered.

The old teachers divided the indications for Cesarean section into absolute and relative: the absolute indication existed when there was no possibility of delivering the child through the natural passages, the way being blocked by a contracted pelvis, a neoplasm, scar tissue, etc.; or the child being a mammoth. The relative indication existed, when after carefully balancing all conditions, the accoucheur decided that the abdominal delivery offered the best chances for mother and child. It is therefore almost wholly subjective, and it left a wide field for the play of individual preference, for the influence of isolated experience, and for the clash of contending statistics. Moderately contracted pelvis, placenta previa and eclampsia are the main so-called relative indications. Before taking up the specific indications, let us study the comparative merits of the two contenders for favor, the corporeal and cervical Cesarean sections.

The objections to the classic Cesarean section have been mentioned.

Do these new operations remove the objections to the old classic Cesarean? They do in a large measure.

1. *The Mortality.* I believe no one of experience will contest the statement that 2 per cent. of patients undergoing a clean nontoxic Cesarean section die at present. Does the cervical Cesarean section reduce this mortality? Reusch completed a list of 595 operations which have been performed in Europe, with a mortality of less than 2 per cent, and again, these were largely on patients who were already infected.

My assistants and I have operated in 121 cases; one mother, no babies died. Theoretically and practically there are many reasons why this should

be so. The incision is made in the lower part of the uterus, the cervix, well known to resist infection. The same may be said of the lower abdomen; it resists infection better than the upper; hence, the Fowler position. The uterine wound is at rest, lochia is not squeezed through it by the after pains, and furthermore, should a leak in the cervical line of suture occur, the leakage is under the peritoneum, between the bladder and the cervix, where it could be easily reached in three ways; through the cervix; between the cervix and the bladder—a simple anterior colpotomy—or by opening the lower corner of the abdominal wound. Should infection wander along the line of suture (as it often does) in the corporeal section it at once reaches the general peritoneal cavity. Remember, the great excursions the puerperal uterus makes—when the bladder fills, for example. It may be under the liver. Should leakage occur here, the peritonitis is quickly general. The cervical section leakage reaches a safer area—one more easily drained.

Another element of safety is the entire absence of handling of the intestine. Often the intestine does not even come into view. Liquor amnii, vernix caseosa, meconium, do not soil the peritoneum.

2. *Abdominal Complications.* Comparative statistics on this point I have been unable to obtain; but the opinions of careful observers are worth something. The convalescence after the cervical Cesarean section is, without question, smoother than after the classic section. Peritoneal shock, ileus, gastric dilatation, I have not yet observed—for reasons above mentioned; tympany and postoperative pain are decidedly less, and one gets the impression that the woman has suffered only a minor operation, not the ordeal of the old Cesarean section. Of the last 26 cases only four vomited at all, and each of these four vomited only once. This feeling of well being after the cervical operation is really remarkable. The puerpera is more comfortable than a patient after an interval appendectomy, the convalescence resembling that after normal labor. These observations are confirmed by the interns and nurses who can compare the two kinds of operations. Of my own cases, there was suppuration in only four cases, which is the more noteworthy since in 21 of them there was a slight suspicion of infection or probability of it.

3. *Adhesions.* Regarding peritoneal adhesions,

I can speak with some conviction, having operated on five patients for the second time. There were none in four cases and in the other there had been suppuration, so we expected them. Titus reports three cases (reoperations) without adhesions. Continental accoucheurs report them absent, and theoretically they should be. In most of my operations the intestine was not touched, and in many of them it did not come into view at all. Furthermore, the contents of the uterus, which many times are irritating if not infectious, do not soil the general peritoneal cavity, and finally the line of uterine suture of the finished operation is only about $2\frac{1}{2}$ inches long, smooth and without catgut knots, and when the bladder fills, is covered by this viscus. In the true extraperitoneal method (Latzko) the peritoneal cavity is not opened at all, and in the absence of infection, adhesions, ileus, etc., will not occur. Adhesions are sometimes caused by seepage of lochia. This is impossible with the newer methods.

4. *Rupture of the Uterus in Subsequent Labor.* I found only two positive cases of this on record, and in both of these the wound had suppurated. In my five cases of pregnancy after the cervical operation, the scar was not visible at the second Cesarean. Continental writers claim this immunity from rupture as a specially strong point in favor of the low cervical method. Experience with vaginal Cesarean section in which the incision is made in the same part of the uterus is confirmatory. The freedom from danger of subsequent rupture is easily understood. When the cut is made in the body of the uterus, the wound surfaces are not at rest during the healing process. With each after-pain the sides of the wound grind on each other, and even in the absence of infection, are prone not to unite. When the cut is made in the cervix, all this is absent. The wound is at perfect rest.

5. *Expansion of the Field for Abdominal Delivery.* Without doubt, the cervical Cesarean section will in many cases obviate the necessity of craniotomy, and its greater safety will allow us to perform the abdominal delivery under circumstances in which previously we may have desisted: for example, in eclampsia, breech presentation, or prolapse of the cord. Best of all, we may give the parturient a thorough test of labor, lasting hours if need be, which is most unwise with the classic operation.

I may say that the more I do these newer oper-

ations, the better I like them, and now they are the first thought when the question of abdominal delivery arises. For doing the old, or classic Cesarean section, I have to have special indications, and these are usually the necessity for instant delivery, the desire to remove fibroids, extreme obesity, section in heart disease under local anesthesia, and in the case of an extremely pendulous abdomen. Experience may prove it possible to omit some of these exceptions, which, anyway, are very rare conditions.

The choice between extraperitoneal and intraperitoneal methods is still undecided, but the majority of operators prefer the latter. The true extraperitoneal operation has the distinct advantage that it protects best against peritonitis—infection, if it occurs, being less dangerous in the connective tissue, and drainage being easily procured. Its disadvantages are that it is often hard to separate the peritoneum and the bladder from the uterus, the peritoneum often, and the bladder occasionally tearing through. The uterine incision sometimes extends down into the base of the broad ligament where lie the large veins and ureter; also the delivery of the child is technically more difficult and its mortality slightly higher. For these reasons, and further, since the results for the mother are just as good, the intraperitoneal operation is most often selected.

Let us now consider briefly the most common indications for abdominal delivery. In the presence of insuperable mechanical disproportion, that is, the absolute indication for Cesarean section, the older obstetricians could only do, if discovered in time, a therapeutic abortion, or the classic Cesarean section at term. If the dystocia was experienced only after infection was present or suspected, a Porro or complete uterine extirpation was demanded, if the life of the woman was not to be forfeited.

Nowadays we may proceed differently. Therapeutic abortion is absolutely contraindicated. At full term we have four courses to select from: the classic Cesarean section, the classic Cesarean section with the Porro modification, the intraperitoneal cervical section, and the extraperitoneal section. In clean and in suspected cases I recommend the intraperitoneal cervical section, and in frankly infected cases, the extraperitoneal section or the Porro Cesarean section.

Of the indications comprised in the term "relative," nearly every obstetric complication we know

has been advanced as a good reason for abdominal delivery.

In the treatment of labor in pelves that are not absolutely contracted, my plan has become more simplified in recent years. Unless the patient positively demands the induction of premature labor, I do not do it, but I allow the pregnancy to go to term. Just before labor begins I make a careful rectal and abdominal examination to determine whether or not there is any chance that the fetus will pass through the pelvis. If I decide that it is highly improbable, I do the intraperitoneal Cesarean section as soon as labor is well under way. If there is reason to believe that the head will go through, I give the patient a real test of labor. If the delivery is impossible, in primiparas, I do the intraperitoneal section, in multiparas either this or pubiotomy, being guided by the individual conditions present. This statement holds also for cases in which infection is suspected. In frankly infected cases I still fear to perform an abdominal delivery, in spite of the wonderful results recorded by continental operators. If such is necessary I would recommend the extraperitoneal method with free drainage in young women, and uterine extirpation in old. Williams recommends the Porro operation to meet this emergency. It is just in these neglected cases that the extraperitoneal method is the easiest of performance. The prolonged action of the pains has drawn the lower uterine segment out, pulling the uterovesical fold of the peritoneum high up away from the bladder, thus giving a large area for incision and the extraction of the child. However, in frankly infected cases, craniotomy is still to be held in reserve, since the child is almost always doomed anyway. Küstner is the only authority to contend that the operation will completely eliminate the necessity for craniotomy.

Eclampsia. I will not discuss the question as to whether or not Cesarean section has a place in the treatment of eclampsia. I am not yet ready to go back to the expectant and medicinal treatment of my student days, nor do I treat every case by instant delivery. If one desires a rapid, easy method of emptying the uterus, and one unattended by shock, the intraperitoneal Cesarean section may be selected. It may be performed under local anesthesia, just the delivery of the child being assisted by a little gas-oxygen anesthesia.

Placenta Previa. If Cesarean section is done

for this condition, I prefer the trachelotomy. If bleeding occurs at the placental site, it is easy to sew up the bleeding sinuses and tampon too, if necessary.

In abruptio placentae, the new operation is the method of choice, unless great speed of delivery is required to save the child. For neglected shoulder and breech presentations, prolapse of the cord, and in the innumerable other obstetric complications, the new operation will, I am sure, find a large field of usefulness where abdominal delivery is really indicated.

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MOONSHINE PSYCHOSIS*

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We have, so far, no way to ascertain how moonshine acts on normal people. As a rule, all the people who are at present using moonshine have used alcohol before. However, the users of moonshine do not develop the psychosis common to chronic alcoholics namely, delirium tremens, alcoholic hallucinosis, and alcoholic paranoia, but the most common psychosis developed in those who are indulging in moonshine are stuporous states where the patient becomes more or less unconscious and in which he either dies or recovers, and when he does recover he does not remember anything that happened to him during the time he was unconscious. He either did not experience any form of hallucinosis, or when he did he does not remember any. He may perform almost any act during the influence of moonshine and after he recovers he remembers nothing he has done. This resembles what we call pathological intoxication, or epilepsy, or its equivalent. When they do develop a hallucinosis, it is mostly of the visual type instead of the auditory in the chronic alcoholics. Usually they see strange people with weapons trying to harm them, and as a rule they have no amnesia differing from delirium tremens in the chronic alcoholics where they see mostly animals and have an amnesia. This goes to prove, in part at least, that the form of psychosis a person develops depends more on the toxins circulating in his body than to inherited tendencies. Apparently, different toxins attack different nerve

cells. While the non volatile alcohol in bonded whiskey seems to intoxicate the nerve cells in the special centers, and we have in the majority of cases, different forms of hallucinosis, the volatile alcohols in moonshine seem to attack the nerve cells in the associated centers and in the majority of the moonshine cases we have all degrees of impairment of consciousness, with impairment of judgment. For illustration, I will cite a few cases that were admitted to the Chicago State Hospital in the past few years:

Frank H., admitted to the Chicago State Hospital, Sept. 15, 1921. History given by a son-in-law as follows. Patient was a heavy drinker until the country went dry. Had never shown any mental symptoms. From that time he did not drink until a couple of weeks before he was admitted, when he met a friend who gave him moonshine. He got drunk that day, had a quarrel with his wife and left the house, returning in the evening when no one was at home. He went to the basement, set fire to his house and then left. He went out to the Forest Preserve and cut his left wrist at 9 o'clock that evening. Neighbors found him there and took him to the Chicago Heights Hospital. When he went home again his family had him taken to the Psychopathic Hospital. The Psychopathic Hospital record states as follows: Physical senile changes; recent incision on left wrist; Mental; good response to mental tests; patient is quiet, co-operative and in good contact; has swings of mood.

Says he noticed his wife was in love with another man. She goes to the window to see a neighbor pass. He became drunk and cut his wrist with a razor. When he was admitted at the Chicago State Hospital, he was clear and oriented in all spheres. He stated he was 65 years old, born in Germany in 1856. Has been in the United States since 1877. He is a citizen. Is an iron moulder by trade. States that August 15, a neighbor gave him some moonshine, and in an hour later he did not know what happened to him until he found himself at midnight in the Chicago Heights Hospital. Then he found out that he had cut his left wrist. However, he does not remember having done it. He was in the Chicago Heights Hospital two weeks and four days. When he left there he stayed with a married daughter. On Labor Day he went to his home and when his people saw him they became frightened and locked the doors and would not let him in. They sent for the police and had him taken to the Psychopathic Hospital. His general knowledge was good and he did the ordinary tests correctly.

Physically, with the exception of an infected wound on the left wrist and a few senile changes, was practically negative.

Patient remained in the Hospital until Nov. 11, 1921, and was paroled to his son in good physical and

*Read before the Chicago Medical Society.

mental condition. In fact, has shown no mental symptoms during his stay in the Chicago State Hospital.

Joseph P., admitted to the Chicago State Hospital, Sept. 22, 1921. History given by a friend as follows: Patient is 39 years old. Born in Poland; in the U. S. 15 years. Friend states that for some time patient was talking queerly. Would tell imaginary people to open the door. At night he was afraid, and could not sleep. Thought he saw a lot of people after him. The psychopathic record states: Physical negative; Mental: Orientation, memory and judgment, good. Retention, general information and calculation poor. Patient is quiet and co-operative, but in poor contact. Emotional attitude fairly adequate. Answers questions to the point. Saw large black dogs and black people with sticks jumping on him. Has been out of work for 9 months. Patient is a chronic alcoholic. When admitted to the Chicago State Hospital, he was clear and oriented. He told the examiner that he went to the County Hospital to be treated for pain under the eyes, and from there he was sent to the Psychopathic Hospital. He stated that while he was at home he saw black people and black dogs, but he was not especially frightened by them. He denied ever hearing voices. Admitted having drunk home brew whiskey. His general knowledge was in keeping with his station, and his physical and laboratory examinations were negative. Patient was getting along well while at the Chicago State Hospital, took good interest in the Hospital activities, and was behaving in a normal manner.

James R. B., admitted to the Chicago State Hospital, Oct. 20, 1921, American, white, 47 years old. History as given by his wife states patient worked regularly until 3 weeks before he was committed when he began to drink moonshine. He has been a periodical drinker for years, but it never lasted long. This time he drank so much that he became paralyzed. He saw imaginary things, and became helpless and she was not able to care for him and had him committed. The records from the Psychopathic Hospital are as follows: Physical: Pupils rather sluggish; spinal fluid negative. Mental: Patient mumbles to himself. Mutters incoherently. Repeats 1,189 to all questions. Appears deteriorated. Speech is slurring. When admitted to the Chicago State Hospital he was a stretcher case. He was helpless, and had to be assisted on the ward. Was confused and could give no details about himself. His speech was thick and slurring, suggestive of paresis. Was restless and talkative. He gradually improved, and by the time his mental examination was made, he was well oriented, although his speech was still thick and slurring. He told the examiner that he began to drink 20 years ago, and became a periodical drinker 8 years ago, but had never before seen or heard things. Two or three weeks before he was committed he drank moonshine with friends. He did not drink much, but it must have been very poisonous, as he lost his senses. He does not remember much that took place for several weeks afterward until a few

days ago. States during that time he saw many animals that scared him for the time being. He also heard some voices, but they were not of importance. He is not able to explain what the voices were, nor where they came from. For several weeks his mind was a blank. His general knowledge was good, and his physical and laboratory examinations were entirely negative. This patient improved constantly, and was paroled to his wife Nov. 14, 1921, in good physical and mental condition.

Joseph P., admitted to the Chicago State Hospital, October 20, 1921. Patient is a Lithuanian 44 years old. In the U. S. 24 years. The history as given by a friend is as follows: Patient worked regularly until a week before he was committed, when he began to drink moonshine. Friend knew nothing which took place after that until he was notified that patient was in the Psychopathic Hospital. When he visited patient at the Psychopathic, patient told him that the doctors there were trying to electrocute him, and that he felt electricity all over his body. The records from the Psychopathic state: Physical: Pupils sluggish. Mental: Orientation and memory fair. Calculation, general information, retention and judgement poor. Quiet, co-operative, but indifferent. Is in poor contact. Feels electricity all over his body. Hears voices. This has been going on for months. When admitted to the Chicago State Hospital he was clear and oriented. He told the examiner that he worked steady until Monday before he was committed. He was hearing voices since before Christmas, but they did not bother him enough to keep him from working. Every time he turns his head, they say in his own language that he is not going to live long; that he must die; that they want his money. He further stated that the voice he heard was the voice of the doctor who had been doctoring him. The doctor wanted his money, and bothered him so much that he once gave him two hundred dollars. The doctor put electricity over his body and it caused him great pain in his head and feet. He stated that he had been drinking moonshine since Christmas. When he first heard the voice, it frightened him, but now he is accustomed to it. His general knowledge was in keeping with his station, and his physical and laboratory examinations were negative. This patient is improving gradually.

David S., admitted to the Chicago State Hospital Oct. 27, 1921. American, white, 56 years of age. There was very little history in this case, as he had lived away from his family for years owing to his drinking habits, as he had been a heavy drinker for years. The records from the Psychopathic are as follows: Physical: Arteriosclerosis; senile changes. Mental: Patient is disoriented, is out of contact, indifferent, and answers questions slowly. Patient is deteriorated. When admitted to the Chicago State Hospital he was a stretcher case and in a very weak physical condition. The heart sounds were feeble and he could not even stand. Had a large pressure sore on back. He was in a stuporous condition, and no information could be gotten from him. After a few

days he improved sufficiently to give an account of himself. At that time it was found that he was only partially oriented. He gave his name correctly, called the place the County Hospital, knew the year was 1921 and the month November, but could not give the date nor the day of the week. He could not state exactly how long he has been here, nor how he came. Said he came here to get cured of the weak spells. He was walking in Chicago, fell on the sidewalk and an ambulance brought him out here. States that he has been drinking since he was 22 years of age. Thirteen years ago he was drunk and at that time he saw and heard different things, but during this attack he does not remember having seen and heard things. States he stopped drinking for about a year after prohibition, but started to drink again, and drank moonshine. His personal identification was well given, but he was very deficient in general knowledge. He could not name the President or Governor, nor the Mayor of Chicago. He named five of the largest cities in the United States and three of the Great Lakes. He named the Spanish American, the Mexican, and the last war as the wars this country has had. He knew that there were other countries in the last war, but could not name them. He knew that George Washington was the President but he did not know that he was the first President. Abraham Lincoln, he stated was the man who cleared up the West. He knew the days in the week and months in the year. His calculations were also deficient. This patient improved physically. His pressure sore healed and he became stronger. He is able to be up, and at present is even helping care for other patients. Mentally, he shows apathy, and when not occupied he will sit down in a chair by himself; will not mingle with other patients; does not talk spontaneously, but answers when spoken to; is pleasant and agreeable and has developed a fabrication of memory. He tells what he has done the day before, how he visited his brother, and how he was walking in many other places while he was not out of the ward. However, he is continuously improving, both physically and mentally.

CLINICAL DIAGNOSIS OF SPINAL CORD TUMORS*

J. ELLIOTT ROYER, M. D.,
CHICAGO

The symptoms of spinal cord tumor naturally vary according to the region in which the tumor develops and the severity of disturbance to the cord, but many of the chief features of these conditions can be best conveyed by describing a recent case.

This was in a man aged 39 years whose illness began with pain in the lower dorsal region. The pain radiated downward to the right and later to

either side, and continued to grow worse; four or five weeks later he began to experience paresthesias of both feet. Later he noticed coldness and stiffness of both legs, but more noticeable on the right. One month later he experienced difficulty in control of his sphincters. One month later he had his last erection. All the symptoms grew worse and within a year he was unable to walk, and within fifteen months he was unable to move his toes. During this time he consulted many well known men who regarded his case as one of tubercular spine, and advised him to lie on his back for six months. While he lay on his back for five months the pain increased and his condition grew worse. The patient then came under the observation of Dr. Stack of Milwaukee, who referred the case to me for diagnosis.

My examination revealed slight tenderness of the spine on digital pressure, that he could not sit up in bed without the use of his hands, and that when he attempted to do this there was a slight bulging of the iliac region, an appreciable failure of the lower portion of the abdominal oblique muscles to contract. The lower extremities were in a position of flexion, with spontaneous spasmodic contractions on the right. There was no voluntary active movement of the lower limbs except a slight flexion of the left thigh. The deep reflexes were more exaggerated on the right. Ankle clonus and Babinski phenomena were present right and left (referring to cut). There was an absolute loss of the appreciation of touch, pain, heat and cold, below and including the fourth lumbar segment, and a relatively increasing diminution, to and including the twelfth dorsal segment of the spinal cord. The sense of position and passive movement was lost in the toes and ankles, also marked loss in the knees and appreciable loss in the hips. To vibration there was almost an absolute loss in both ankles and right tibia; marked loss in left tibia; relatively decreasing loss to twelfth dorsal spine. The spinal fluid was of a straw color; globulin content markedly positive; no increase of cells; no tumor cells. The x-ray was negative.

The progressive sequence of root and cord symptoms; the nature and extent of the motor paralysis; the condition of the reflexes, sensory loss, corroborated by xanthochromia, increased globulin and no increase of cells, formed a syndrome which pointed unerringly to spinal cord

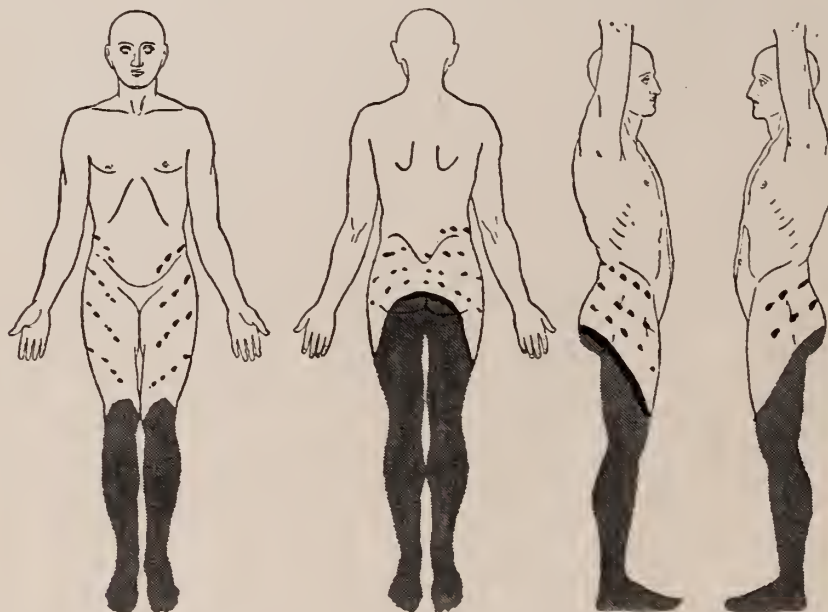
*Address before the Illinois State Medical Society, May 18, 1921.

tumor. Now, what are the localizing symptoms? First, on the motor side, the slight paralysis of the lower abdominal oblique muscles; second, the upper border of the sensory loss; third, the loss of the lower and middle abdominal reflexes; fourth, the diminution to the sense of vibration. All four in harmony, pointed to the twelfth dorsal segment of the spinal cord as being the upper limit of the tumor. Accordingly, I advised the operator, Dr. Witte, of Milwaukee, to make an incision at the level of the ninth spinal process and remove the ninth, tenth and eleventh vertebral arches.

the results, but because of its presenting so many interesting aspects from the viewpoint of diagnosis.

In line with my personal clinical diagnosis and post-operative findings in nine cases of tumor of the spinal cord, and the case histories on file at the National Hospital, Queens Square, London, there are, in the life history of a spinal cord tumor, three fairly defined consecutive periods of evolution.

First: The root symptoms when the tumor is extramedullary, with sensory disturbances in the areas innervated by the posterior roots, with per-



Dotted lines show the areas of ascending increased appreciation of pain and corresponding to the line of change as marked out in testing with pin point. This also obtained to the appreciation of heat and cold, but not definitely so to touch. The parts coloured black showed a total loss to touch, pain, heat, and cold.

The dura of the spinal cord was exposed, the dura over the tumor appeared tense. Respiratory spinal fluid waves could be seen above the tumor mass, while the tumor itself and the part below it remained stationary. The dura was incised and found adherent to the tumor but removable. The tumor enveloped the spinal cord; appeared to be a nodular enlargement of the cord, and infiltrating it; originating perhaps in the pia or periphery of the cord. The tumor was incised in its posterior median aspect, and was found to be infiltrated through the cord and impossible to remove surgically. Macroscopically it had the appearance of sarcoma.

I present this case in detail not so much for

haps irritative symptoms in the distribution of the anterior roots.

The second period, when the tumor is above the first lumbar segment, is the incomplete Brown-Séquard syndrome of paralysis of motion and sensation, which finally evolves to a complete sensory and motor loss in all parts below the lesion.

The third period is marked by a complete paralysis of the bladder and rectal sphincters and abolition of all reflexes whose arcs are involved.

When it is a question of an intramedullary tumor, the cord symptoms, which form the second period of the life history as given above, are likely to precede the first or root symptoms. The fact that in the present case the root symptoms came

first and was rapidly followed by the cord symptoms, suggested a growth having its origin in the pia, or periphery of the cord, near the entrance of the posterior roots, which rapidly infiltrated the cord. The operation verified this. An extradural tumor may show root symptoms during several years before the cord is finally involved. Again, in epidural tumors root symptoms are not infrequently bilateral from the beginning.

Other spinal conditions may simulate spinal tumor, especially in the early stages. A pure transverse myelitis is excluded by its usual acute onset; multiple sclerosis, by the permanent absence of pain, and upon the absence of a sensory and motor disturbance noted evenly and constantly at certain levels, and later of characteristic symptoms; meningovascular lues by its frequent and considerable alteration in its violence and extent; and syringomyelia by the dissociated character of the sensory disturbance. Pachymeningitis is generally cervical, progresses less rapidly than tumor, and the sensory disturbances are slight and not sharply localized. A greater degree of stiffness of the spinal column and painfulness upon motion of the trunk, will count in favor of a developing spinal caries. Pain is diffuse in caries, while in spinal tumor there is a more or less distinct pain in the distribution of the sensory nerves passing through the involved level.

In conclusion I desire to say that it is only by studying the clinical course of lesions of this type confirmed by operative findings that we can arrive at correct data and conclusions which will be of value in the earlier and frequent recognition of spinal cord tumors.

DISCUSSION

Dr. Lewis J. Pollock, Chicago: The late war in affording us an opportunity to study a large number of injuries of the spinal cord, has permitted us to glean considerable information relative to focal diagnosis.

In two directions especially has investigation been fruitful. First, as to the differentiation of complete from incomplete lesions of the spinal cord. This is concerned chiefly with Bastian's old law that in a completely severed cord the deep and superficial reflexes as well disappear and remain absent. Numerous observations have sufficed to prove the incorrectness of this view. It has been found that after a period of two to three weeks, during which time spinal shock is present, an automatic function of the spinal cord is assumed and deep reflexes may be present and certain pathological ones elicited. It follows that the absence of reflexes below the level of a lesion can no

longer be interpreted as meaning a completely severed cord, and the preservation of such reflexes cannot be interpreted as meaning a partially severed cord.

The second direction of investigation has pointed to a clarification of our knowledge of the course of sensory fibers in the spinal cord. It may be remembered that in 1908 Head called attention to the fact that in cases of Brown-Sequard paralysis occurring as the result of lesions in the dorsal region, the sacral segments had preserved sensibility, whereas the upper segments showed analgesia. From this he concluded that a lamellar distribution of sensory fibers was present in the spinal cord. Later, Gordon Holmes, confirming this observation and noting that as Brown-Sequard paralysis recovers there is a caudal retreat of analgesia, came to a similar conclusion and stated that the fibers subserving the sacral segments occupied an area lateral to those of the upper segments. From this observation it could be inferred that were one dealing with an intramedullary tumor the lowermost segments would show a preservation of sensibility; where as, if one were dealing with an extramedullary condition or a compression of the cord the lowermost segments would be the first to lose sensibility.

This is not borne out by clinical observation and in my experience I have seen the sacral segments have their sensibility preserved in extramedullary and intramedullary conditions alike. This perhaps is explainable on the basis of diffusion of fibers as they ascend.

Recently Babinski has called attention to the fact that in cases of transverse myelitis the upper level of sensory disturbance lies closely adjacent to complete analgesia, whereas in cases of compression of the cord there is a large area in which sensation is diminished or perverted between the upper level of sensory change and complete analgesia.

Several new syndromes have been described which permit of regional diagnosis. One very interesting collection of symptoms has been noted with reference to lesions of the lower cervical segments producing hypothermia, diminished blood pressure and somnolence. Another one in the upper cervical segments produces marked increase in temperature. In dorsal cord involvement, persistent hiccupping has been noted.

Our limited knowledge of sensory changes, dependent as they are upon marked variability in the crossing of pain and temperature fibers to the opposite side of the cord, frequently are confusing as to level diagnosis. The fact that in one area one segment may suffice and in others five or six be necessary for the crossing, indicates the unreliability of employing sensory changes to determine levels. Frequently the segmental diagnosis may be made with greater accuracy by determining the upper level of motor change, as is seen in the employment of Beevor's sign produced by paralysis of the lower portion of the abdominalis rectus muscle.

Dr. Julius Grinker, Chicago: I wish to emphasize some of his points, for it is necessary that the man

who is not a neurologist should know some of the symptoms in making a probable diagnosis of tumor of the spinal cord. Every patient suffering from so-called intercostal neuralgia should be thoroughly examined for tumor of the spinal cord. One of the earliest manifestations of tumor, particularly of extramyelin tumors or those growing from the membranes, is persistent localized pain. This pain, usually diagnosed as neuralgia, should be the first warning that there might be a tumor present. It has been my privilege to see several so-called cases of intercostal neuralgia which proved to be spinal cord tumors. One case was that of a woman who had been treated for neuralgia by a physician who had administered all sorts of remedies. The pain disappeared after the nerve root had been destroyed by the tumor and the doctor believed he had cured the intercostal neuralgia. However, shortly afterward the so-called neuralgia appeared on the opposite side. The physician then called it pleurisy and sent the patient to the Cook County Hospital. The case came under my observation and a large sarcoma was found on operation. This case should have been diagnosed as spinal cord tumor long before the prospects for recovery had passed.

For the physician it is important to know that the surgery of the spinal cord offers its best prognosis in tumors. One may talk much about brain surgery, but speaking from an experience of many years I dread the results of surgery of the brain, but look forward to brilliant results from surgery of the spinal cord provided an early diagnosis has been made. It is necessary, therefore, to familiarize one's self with the symptoms. The symptomatology is simple, beginning with pain on one side, followed by some degree of paralysis of motion, perhaps slight difficulty on one side at first, later on the other. One may find a Babinski sign and other evidences of motor paralysis, and last of all, the sensory objective signs, analgesia and anesthesia. We do not have to wait for complete analgesia or anesthesia, but even slight changes in sensation should constitute a warning, especially if appearing at a certain definite level about the trunk,—the so-called trunk-anesthesia.

Dr. Frank Parsons Norbury, Springfield: I think we all remember our first cases of a definite kind of pathology, especially if that applies to the cases of obscure diagnosis. The case to which I refer occurred before the days of the x-ray and before the definite localization we now have. This case I have in mind was that of a man who carried rather large financial interests and who at the time was under considerable stress on account of a deal he was trying to put through. On the day he closed it up, on leaving the bank he had a slight flexion of the right leg; he thought he stumbled. He soon had a similar thing in the left leg, and this started the trouble that led to his death. The man was living on the Pacific slope and was seen by several neurologists there who, on account of his known circumstances, concluded it was a neurosis. The man was brought back to his home, where I saw him, and where Dr. Fry of St.

Louis and Dr. Patrick of Chicago saw him, and we all concluded that the case belonged to the neuroses. Yet there was definite motor tension suggesting tumor and the patient made no improvement. I concluded that there was something wrong. By reason of the fact that this man had formerly lived in the east we took him to Philadelphia to Dr. Weir Mitchell. Dr. Mitchell and his son John examined him, also Dr. Lewis, his assistant, who made the diagnosis of tumor of the spinal cord.

The interesting part was that there was almost complete absence of sensory symptoms when Dr. Patrick, Dr. Fry and I first saw him. The findings were limited almost entirely to motor symptoms. The man died very suddenly and it was found that he had a tumor. This was before the days of the x-ray and while localization was satisfactory in a way, it left the diagnosis very obscure.

This brought out the point emphasized by Dr. Wiley, whom I heard emphasize it. This man had a tumor of the left breast which was removed by Dr. Wiley some years before, which goes to show what has been so often proven,—that many of these cases are metastatic, and if you can get a history of tumor existing in the breast, especially in a man—then look out for the cord symptoms as probably being metastatic.

I have had three such cases, all prior to the days of the x-ray. All showed erosions at post-mortem. Where we have a history of tumor in the breast and then get these obscure neurological findings it is up to us to look out for metastatic tumor of the cord.

WHEN IS THE SIMPLE MASTOID OPERATION INDICATED IN THE TREATMENT OF ACUTE MASTOIDITIS?*

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My motive in bringing a paper of this character before this society, is not that I have anything new to offer in the management of these cases, but rather to emphasize some of the golden rules of otology, and to protest against the all too prevalent practice of operating indiscriminately in some of these cases.

The pneumatic structure of the mastoid bone is a part of the middle ear and is lined with a continuation of the tympanic mucosa. It is, therefore, subject to extension of acute tympanic inflammations which result in the production of acute mastoiditis. Every case of acute suppurative otitis media is potentially one of acute mastoiditis, because in the severe cases pus is usually present in the antrum and in the mastoid cells. The presence of pus in the antrum and mastoid

*Read before Chicago Medical Society, Nov. 30, 1921.

cells does not imply that a mastoid abscess is present unless the osseous structure of the mastoid becomes involved.

If there be no obstruction to the drainage of pus from the mastoid cells into the tympanic cavity, there is not likely to be involvement of the mastoid bone. However, when the drainage is obstructed due to swelling of the muco-periosteal lining of the outlets, and retention occurs, the underlying walls of the air cells soften. This is largely due to interference with the nutrition of the bone, for the vascular supply of the bony walls is largely derived from the muco-periosteum. Necrosis and softening of the bone results in the disappearance of the intercellular bony structures and the formation of a mastoid abscess. This is Nature's method of demarcating bone which should be removed. An infection of the large terminal cells in the mastoid predisposes to the production of mastoid abscess, because the further the mastoid cell is removed from the aditus, the more difficult the drainage.

This is especially so where the mastoid cell is located below the level of the aditus, when the drainage must of necessity be uphill, in order that the pus may reach the aditus and drain into the tympanum. The length of time for the bone to become involved varies, according to the type and virulency of the infecting organism, the resistance of the patient, the degree of the tympanic drainage, and the type of the mastoid bone. The streptococcus is the most destructive micro-organism. The sclerotic is more resistant than the pneumatic bone. Ordinarily, it takes about three weeks for decalcification to occur in the mastoid bone as a result of inflammation.

A simple mastoid operation is positively indicated when osseous softening has occurred, but not in the congestive stage, or the so-called acute hemorrhagic type of mastoiditis, where bone softening has not yet occurred, unless intracranial, labyrinthine or pyemic complications are threatening.

The acute mastoid cases in which operation is not indicated are the cases without bone destruction or abscess formation, and those not having developed symptoms of serious complications. In these cases watchful conservative treatment for a period of three weeks should be established, for, as Norval Pierce states, "It requires three weeks for decalcification to occur in the osseous structure of the pneumatic cells and in the absence of

obvious complications, unless the intercellular bony trabeculae are broken down, a mastoid operation is not indicated."

The length of time the acute otitis media has existed, is a valuable factor in determining the necessity for operation. An acute otitis media in which there has been a spontaneous perforation or incision of the drum membrane should clear up within three weeks, so that a discharge lasting more than three weeks indicates that the tympanic drainage is insufficient and additional drainage ought to be established. Bezoldt and Siebenmann state that a mastoid operation is scarcely ever indicated before the eighth to the fourteenth day. Politzer rarely operates before the eighth day, and Schwartze rarely ever operates unless the mastoid symptoms continue eight days after the free drainage of the middle ear has been established. That too many mastoid operations are performed unnecessarily is a well established fact as witnessed in many cases of acute suppurative otitis media which have been operated on during the first week on account of tenderness over the mastoid fossa.

Painful mastoid symptoms in the first week have not the significance that they have in the second or third week. Nearly all of these cases with mastoid tenderness and infiltration over the mastoid fossa, if seen early and properly treated will recover without a mastoid operation. In not more than 1 per cent of the cases of acute suppurative otitis media is it necessary to perform a mastoid operation, provided they have had the benefit of early and rational treatment.

Heine states, "I cannot recollect a case of acute suppurative otitis media from my private practice in which I was obliged to open the mastoid provided the drum was opened at the proper and early time and the patient rested in bed." The greater the interval between the onset of the acute suppurative otitis media and the spontaneous or surgical perforation of the drum membrane, the greater the severity of the acute mastoiditis with or without complications, and therefore, the greater the necessity for future surgical interference.

The case that is not seen early enough or that is improperly treated from the start is the one that usually requires a mastoid operation. The question of whether a simple mastoid operation is indicated or not in a given case, will often depend largely on one's judgment and experience. The

crux of the whole problem is to determine which case can be safely let alone and which cannot. Each case should be judged on its own merits, being guided by all the evidence that can be obtained from an accurate history and observation of the clinical signs and symptoms, together with blood and x-ray examinations.

The acute mastoid cases in which a mastoid operation is indicated are those developing in the course of a chronic suppurative otitis media, those showing signs or symptoms of threatening intracranial complications, as meningitis, labyrinthitis, lateral sinus thrombosis, epidural, cerebral, or cerebellar abscess and facial paralysis, and those showing bone involvement, or abscess formation.

A Roentgenogram in the acute cases will give valuable evidence of the presence or absence of bone involvement. The acute cases will show a cloudy mastoid within ten days. In the cases without bone necrosis, the mastoid cells are hazy, on account of the presence of serum or pus, but the cell walls are distinct and intact, while the cases with bone necrosis show also cloudy cell spaces, but in addition the sharp outlines of the cell walls are lost, because the cell walls are broken down. Shambaugh states that "pus in the mastoid is not itself an evidence that a mastoid operation was justified; it is rather the evidence of softened bone or the presence of an abscess cavity that justifies operative interference and it is this information that the skiagraph gives us before the clinical evidence does." I wish to emphasize the importance of a good radiogram in determining the advisability of operation in acute mastoiditis. Once the intercellular septa are broken down a decision to operate should be made as now there would be no advantage in further delaying operation. However, in this connection, a word of caution is necessary in making a decision to operate on the radiographic evidence alone. This evidence should be reinforced by some of the other clinical signs and symptoms.

Surface indications of bone involvement are found in periostitis, subperiosteal abscess, Benzoldt's abscess and fistula. Periostitis causes infiltration, tenderness, sagging of the postero-superior canal wall and narrowing of the external canal. When infection occurs in the pneumatic type of mastoid bone, the signs are marked, but when it occurs in the sclerotic type with a thick cortex, the signs may be mild or absent. A mastoid abscess should be suspected even when there

are no surface signs, if there has existed a profuse discharge of pus from the ear for three weeks and especially when associated with fever, localized earache or insomnia.

It not infrequently happens that a mastoid abscess is present without there being any elevation of temperature. Subperiosteal abscess occurs most frequently in infants and children. In infants, within the first eighteen months of life, the pneumatic cells have not yet developed; pus frequently perforates through the squamo-mastoid suture. The antrum is large and superficially located in infants and the squamo-mastoid suture runs through the posterior part of the antrum which favors perforation. In Benzoldt's abscess a perforation occurs on the inner surface of the tip of the mastoid bone into the digastric fossa. Pus accumulates beneath the muscles attached to the mastoid tip. This condition should be suspected when a swelling is found below the tip of the mastoid. The simple mastoid operation is also indicated under various other conditions, viz., when there is sudden cessation of the otorrhea together with the development of symptoms of retention, where drainage is insufficient in spite of repeated incisions of the drum membrane, and especially when associated with narrowing of the external canal due to sagging of the posterior superior canal wall; where the general appearance of the patient is out of proportion to the severity of the local signs, as for example, in cases where besides the otorrhea there are no surface signs of bone involvement, yet the patient shows signs of sepsis and especially so when associated with nocturnal pains interfering with sleep, when there is a persistently high fever or a remittent or intermittent fever with or without chills; when there is recurrent mastoid tenderness and tympanic drainage cannot be improved; and finally where mastoid symptoms have been present and have disappeared but there still remains a considerable discharge from the ear of from three to six weeks' duration, which has not responded to treatment.

Norval Pierce states that "Any acute suppuration of the ear which lasts over six weeks should have the simple mastoid operation performed not alone for the cure of the suppurative process within the mastoid but to protect the internal ear against involvement which would result in impairment of hearing and an intractable tinitis."

Clinically, the acute mastoid cases may be di-

vided into three groups from the standpoint of conservative or operative treatment:

First. Cases in which the positive indications for mastoid operation are present.

Second. Cases which manifestly do not require a mastoid operation.

Third. Cases in which it is difficult or sometimes impossible to correctly decide whether the conservative or operative treatment is indicated.

The paramount question to decide in a case of acute mastoiditis in the early stage, i. e., before three weeks have elapsed from the onset, is whether immediate operation is imperative or whether operation could safely be deferred until reasonable certainty of bone involvement exists.

Early operations do not prevent complications although the advocates of early operations make this claim. The best interests of the patient are served by treating the case conservatively unless there exists positive indications for operative interference.

If this is done many unnecessary mastoid operations will be avoided.

25 East Washington St.

DISCUSSION

Dr. Norval H. Pierce agreed in large part with the essayist regarding mastoid inflammation and operation. It exemplified what he had found to be true in hundreds of cases at the Illinois Eye and Ear Infirmary, and not only that, the essayist had voiced the opinions of well informed otologists all over the world. In every case of otitis media of any severity there was involvement of the mastoid cells. In every case of acute otitis media there was a more or less beginning periostitis of the exterior of the mastoid process. The pain from a mastoid inflammation is always due to this periostitis and not due to anything that was going on in the mastoid itself. The periostitis was induced by microorganisms or by the toxins within the mastoid.

In children it was the rule to have high fever in severe otitis media, and a pronounced periostitis was very likely to occur. There might be even infiltration in the mastoid fossa, so that its outlines were destroyed within the first week. Some men believed that this was an indication for operation, and by operating they prevented complications, shortened the pathological process, and protected the hearing. He doubted this and stated that unless the labyrinth was involved at the beginning there was no danger to the hearing. Complications arose by direct extension of the softening process alluded to by the essayist, involving the sigmoid sinus, the meninges, the labyrinth. This softening did not take place until well into the second week or the beginning of the third. Complications occurred by extension by means of blood vessels, by thrombosis, especially in children

with a rich vascular supply. Osteophlebitis was set up and the thrombosis extended to the lateral sinus where many of the veins emptied. These complications could not be prevented in the early stages because we could not tell when we got beyond the thrombotic process, and there was no means of determining it. The only way complications occurred was by the transportation of septic material from a focus of infection to a distant point. These complications could not be prevented by early operation, therefore he protested against the reasons given for early operation by the early operators. He believed that three weeks was a long time to set for decalcification of the bone, because he thought it occurred earlier than that in some cases because of a lack of resistance on part of the patient and the peculiar anatomical formation of the mastoid. If one took a series of 300 cases he could be reasonably certain that in the vast majority of them it would take from 16 to 21 days for decalcification of bone to occur, and it was for this pathological process the otologist operated. There was muco-pus in all mastoid cells in severe cases of acute otitis media. It was only when the walls between the pneumatic spaces were broken down that the otologist operated.

Dr. George E. Shambaugh said he was pleased with the general tone of the paper. The essayist had expressed in a comprehensive way the best views in regard to the question of operating for involvement of the mastoid in cases of acute otitis media.

There were some points he would like to emphasize, one of which was the frequency with which the mastoid was involved in cases of acute otitis media, and the other the infrequency with which a situation developed requiring surgical interference. One often heard the remark made by an operator in the first three or four days after operation that he found pus, and therefore the operation was justified. Not at all. There were two situations developing which justified a mastoid operation. One was some intracranial complication, sinus thrombosis, or something of that kind, and the other was when the mastoid process had undergone changes. The mere involvement of the mastoid did not justify operation.

A skiagram was often a means of deceiving people who did not understand the facts regarding mastoid cases, just as transillumination of the mastoid was often deceiving. If one took a skiagram of the mastoid in a case of acute otitis media during the first week it would show a cloudy mastoid, but this did not necessarily mean there was mastoiditis. One could tell that usually without a skiagram. It did not show the mastoid had undergone changes which necessitated operation. Valuable information was obtained from a skiagram after the first week. The skiagram then gave a definite outline of the size, change and location of the mastoid abscess.

The most frequent offenders of operating unnecessarily in the early stages of otitis media or at any stage of the disease were those men who were operating without having that technical knowledge which the aurist possessed in regard to the situation. It was a

simple matter to teach anybody the technic of a mastoid operation, but it was difficult to teach a man to recognize the proper indications for a mastoid operation.

Only a few days ago he saw a patient in consultation in the first week of an otitis media. He went over the case carefully. The mastoid was not sensitive, although the patient had some pain occasionally. There was no contraction of the fundus of the canal, and there was no reason why one should suspect a condition there requiring a mastoid operation. Notwithstanding he went over the case carefully with the patient and doctor, the next day he found out the patient had been operated on. In this case, as in many others, unnecessary operations were being done.

Dr. J. Holinger said he would like to go one step further than Dr. Shambaugh had done, namely, if an operation is done by a general surgeon, and he is in a position to attend to the after-treatment of the case the patient may get a complete return of his hearing, but unfortunately the after-treatment was neglected in many instances.

A surgeon came to him and said, "Doctor, I have operated on a mastoid case and the patient does not hear. What can be done to get his hearing back?" Dr. Holinger asked him whether the patient could hear before the operation, and he replied yes. This was several weeks after the operation was done. This general surgeon had undoubtedly destroyed the labyrinth, and it was only a piece of good luck the patient did not die. He thought this general surgeon had absolutely no idea of what he had done.

After the mastoid had been operated on, for a certain length of time there was still suppuration of the middle ear, and if properly cared for this suppuration would cease and complete healing take place.

The after-treatment of these cases was as important as the operation itself, and unless the general surgeon was prepared to attend to the after-treatment he ought not to deal with these cases.

Dr. Yerger, in closing the discussion, stated that in cases of acute otitis media, where there was spontaneous perforation, the perforation usually was not large enough to afford good drainage, and as drainage was the important thing in the prevention of acute mastoid complications, it was necessary to enlarge the perforation sufficiently so that it would afford good drainage to the tympanic space, to the antrum and mastoid cells.

A GRAPHIC EXPLANATION OF THE WASSERMANN REACTION

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The graphic explanation of abstract matters has always been of good service to elucidate scientific phenomena. In medical matters, this method of explanation has been used with great success pre-eminently by Ehrlich. Following his example, a

diagram has been devised to visualize the phenomena of the Wassermann reaction and to simplify them in such a manner that every physician, I believe, can readily understand them.

The days when the Wassermann reaction was a blank mystery have passed. We have advanced at least so far that the basic principles involved in this reaction have become clear and transparent. These basic principles constitute the landmarks given in the diagram. The infinite and laborious technical details, that make the Wassermann reaction the cumbersome task it still is today, are not touched upon, as they do not concern the general practitioner.

There are two circuits in the diagram: an upper and a lower. The upper circuit represents the negative reaction. In the laboratory, this negative reaction is indicated by the dissolution of the sheep corpuscles used in the test and the reddening of the fluid in consequence of the diffusion of hemoglobin. The lower circuit represents the positive reaction. In the laboratory this positive reaction is indicated by the fact that the sheep corpuscles remain undissolved. The hemoglobin does not diffuse and the fluid does not redden.

In the upper circuit, or negative reaction, three factors are involved: 1, the amboceptor, or specific sheep corpuscle dissolving ferment; 2, the complement; 3, the washed sheep corpuscles. All three factors and their biologic reactions are well known.

First, the amboceptor or specific sheep corpuscle dissolving ferments. We produce these ferments by using the well-known fact that any albuminous substance, when injected into an animal body, calls forth the development of specific ferments that are capable of digesting, or disintegrating, the injected albumin. Thus, if sheep corpuscles are injected into a guinea pig, the pig develops specific ferments that are capable of disintegrating sheep corpuscles, whether within the guinea pig or in the test tube. These specific ferments are called amboceptor or specific anti-sheep ferments.

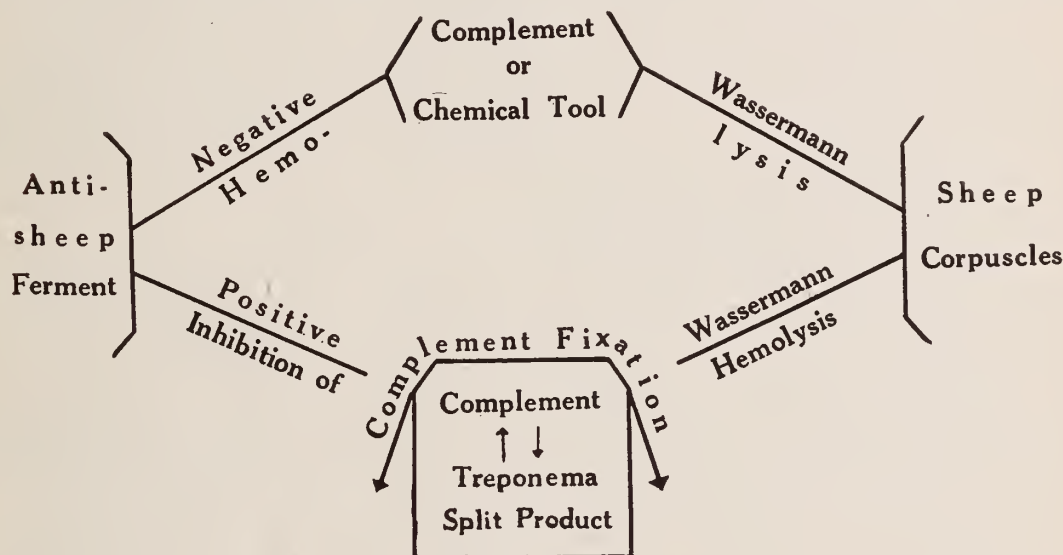
Second, the complement. This, too, is a well known factor. The discovery of Bordet, of France, that ferments cannot be active except in the presence of another substance, known in America as "complement," is now everywhere accepted as an indisputable fact. This complement is to the ferment what the mechanical tools

are to the carpenter. As the carpenter is unable to fashion his lumber without his tools, so the ferment is unable to do its work without complement. I have, therefore, elsewhere¹ designated the complement as the chemical tool of the ferment. This designation of the complement will help much to add to the understanding of the Wassermann reaction, as expressed in the diagram.

A simple and well known example may serve as an illustration. Pepsin is a ferment and hydrochloric acid is its complement, or chemical

fore, the reddening of the fluid is the visible sign, or indicator, that nothing interfered with the biologic reaction.

This upper circuit represents also the negative Wassermann reaction in so far as the normal, non-syphilitic blood, if added to the above mixture, does not interfere with the complement and the reaction runs its course as if no blood had been added. In other words, the reddening of the fluid by the diffusing hemoglobin is the indicator that the added human blood contains nothing to rob the antisheep ferment of its chem-



tool. Pepsin plus hydrochloric acid will digest casein, but if we take away the acid, pepsin becomes incapable of action as does the carpenter, who cannot fashion his lumber, if he loses his tools.

The chemical composition of complement is different for different ferments. However, it is always of the nature of a simple inorganic compound. In the case of pepsin, we know it to be hydrochloric acid. With rennin it is probably a calcium compound. In the case of blood ferments, the nature of complement is the same. There is ample proof, for example, that in some instances at least, as with precipitins, it is as simple as sodium chloride, or common table salt.

The meaning of the upper circuit of the diagram seems now sufficiently plain. If placed together into a test tube, the antisheep ferment will, with the aid of its chemical tool (complement), disintegrate the sheep corpuscles and, thus, by liberating hemoglobin, tint the fluid red. There-

fore, the reddening of the fluid is the visible sign, or indicator, that nothing interfered with the biologic reaction.

However, if the blood of a syphilitic person is added to the above mixture—specific antisheep ferments plus complement plus sheep corpuscles—the complement is destroyed by the syphilitic complement fixing substance contained in syphilitic blood. The ferment, thus robbed of its chemical tool, can no longer disintegrate the sheep corpuscles and the hemoglobin is not diffused. Thus, the non-reddening of the fluid is the visible indicator that the syphilitic, complement fixing substance is in the blood and, by robbing the ferments of its chemical tool, prevents the dissolution of the sheep corpuscles.

This union of the complement with the syphilitic, complement fixing substance is shown in the lower circuit.

The syphilitic, complement fixing substance is a digestive split product of the treponema and is formed during the parenteral digestion of dead

sypilitic germs, as I have shown elsewhere.²

The only factor that remains uncertain as to the role it plays in the Wassermann reaction is the so-called "antigen." It is not shown in the diagram to simplify the sketch and to avoid confusion. Its purpose is probably mechanical rather than chemical and has been suggested in a former communication on this subject,¹ to which I refer for particulars.

30 North Michigan Blvd.

A MODIFIED TECHNIQUE FOR THE CONTROL OF TONSILLAR HEMORRHAGE

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During an operative experience of a very large number of cases at the Illinois Charitable Eye and Ear Infirmary, there was impressed upon the mind of the writer the advantage of tying all but the most trivial bleeders from the tonsillar fossa in each and every case.

The technique of tying is one which few surgeons appear to have acquired. The lack of interest and ability in this regard results in part at least from the failure of any of the available text-books upon ear, nose and throat work, to include within their pages a detailed description of any such procedure. Wherefore it has been deemed worth while to attempt a small paper on this subject. There is need of an accurate technique in order to check with certainty all bleeding at the time of the operation in the first place, otherwise secondary hemorrhage would not occur. In the presence of a late hemorrhage, there is still more need of an accurate technique, in order to avoid the futility and hazard of the more ordinary methods usually employed.

The method to be described is a modification of one used by Dr. H. R. Boettcher, to whom the writer feels indebted for some valuable ideas upon the subject both of tonsillectomy and the control of tonsillar hemorrhage. The instruments used are those of Boettcher's, including his special types of tier, tonsil hook, artery forceps, and tongue depressor, and also a uvula holder.

The operation is performed with the patient

lying on the right side. A sand bag is placed under the neck. The surgeon sits in front of the patient. To his left is a table with instruments. In back of the table is a nurse. The operator's assistant stands at the head of the patient and also controls the anesthetic which is administered through a tube with the usual apparatus. An orderly holds the body of the patient steady upon the right side.

The tonsils are removed by a scissors and snare dissection. After removal of the right tonsil, the anterior pillar is retracted by means of the two-pronged hook held in the assistant's right hand, while traction is maintained on the uvula through a uvula holder with his left. After removal of the left tonsil, the assistant's right hand controls the uvula holder and his left the hook.

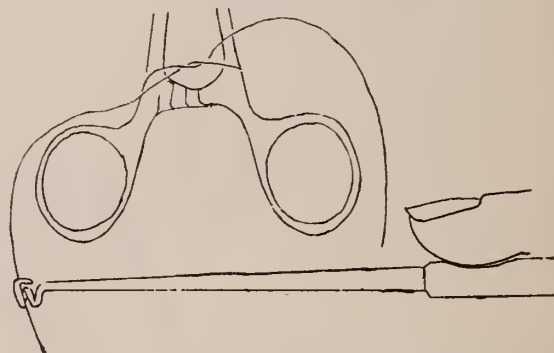


Diagram 1. Note relative position of threads in crossing to form loop. Engaging end is hooked by tier.

Thereafter the operator can conveniently depress the patient's tongue with tongue depressor held in his left hand, sponging the nicely exposed tonsillar fossa with his right, preparatory to seizing the individual bleeding points with the artery forceps.

The sponges used should be quite small, small enough that their main body lies almost concealed within the grasp of the holding forceps, so that the surgeon may rub over and observe a bleeding point without actually removing the sponge from the tonsillar fossa.

For grasping a bleeding point, a forceps with jaws slightly curved on the flat is applied in such a manner that the concavity of the curve is toward the patient's feet. After catching the bleeding point the forceps is given a quarter turn in such a manner that the concavity of the curve is directed upwards, i. e., towards the ceiling. All is now ready for applying the ligature.

One-half of the length of a No. 2 dry cat-gut

1. Herb, Ferdinand: Nature of Antibodies and of Complement in Relation to Immunity: New York Med. J. 1921, Nov. 2, p. 503.

2. Herb, Ferdinand: Origin and Nature of the Substance Concerned in the Production of the Wassermann Reaction, and Its Relation to the Specific Symptoms of Syphilis. Monograph.

ligature is employed. Let it be emphasized that the cat-gut should be number two and dry. A loop is made around the forceps, twisting the right-hand thread first over, then under the other to become the left-hand thread. See Diagram 1. To avoid confusion this primarily right, secondarily left end will be referred to as the engaging end from the fact that it is the one that is engaged by the tier. The other will be referred to as the free end.

The engaging end is now hooked by the tier,

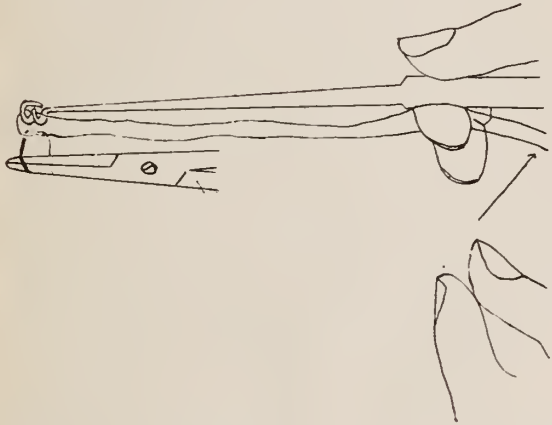


Diagram 2. Engaging end is passing down through spiral coil of tier, and secured between tier and index finger. Free end is held between index and middle fingers. Note thumb and index finger of left hand ready to grasp free end for closing of loop.

whereupon with one complete spin of the latter around its long axis held at a right angle, the thread is lodged within the lumen of its spiral coil.

The grasp of the surgeon's right hand on the tier is such that while his thumb rests in a depression in the handle at about the middle of the length of the instrument, the engaging end of the suture is caught opposite between the handle and his index finger, and the free end is caught adjacent between the index and middle fingers. The fourth and fifth fingers otherwise unemployed are used to support the forceps and prevent its sagging.

The loop is now pushed down as far as the joint of the forceps and is here drawn up snug by traction on the free or both ends of the suture as necessary, through thumb and index finger of the left hand. The greatest difficulty of operators in tying is to get the loop over the end of the forceps and keep it there until the knot is drawn home. Observance of the previous

details of technique makes this the easiest kind of a manipulation.

A slight degree of tension of both thread ends is maintained, whereupon, without the slightest difficulty, the loop is pushed over the end of the forceps. The free end is now pulled upon by thumb and index finger of the left hand passed under the forceps, thus closing the loop on the seized bit of tissue. See diagram 2.

The artery forceps is now removed and while the tier is still held in position, additional traction is made on the free end of the suture, to completely tighten the knot.

Another loop is now made, the tier is engaged in the right hand thread, and both thread ends are held together under slight tension between thumb and index finger of the left hand, while the second tie of the knot is pushed home by pressure through the end of the tier.

The above procedure is simple and harmless. It is used preferably in connection with a general anesthetic, though it can be adapted without great difficulty to use after operations under local anesthesia. The suggestion, possibly a good one, has been made that the procedure might be used to advantage for ligations in deep abdominal surgery.

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SOME OBSTETRIC PROBLEMS OF A COUNTRY DOCTOR*

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The title of this paper is misleading inasmuch as it is not the purpose to draw a line of distinction between the methods of the practice of obstetrics in the city and in the country. The object is to call attention to, and invite a discussion of, some of the responsibilities of the attending physician and the dangers to the parturient woman and the child of that large class of confinements which from any cause cannot or do not have the advantages of a hospital, maternity home, nor a trained nurse, whether such confinements occur in the city or country. The necessity of these advantages seems to have gained favor so much more rapidly in the cities than in the country that it becomes convenient to classify as the title suggests.

If the presentation of this or any other subject

*Read before Southern Illinois Medical Assn., Nov. 3-4, 1921.

is necessary or worth while there must be a reason why for such discussion.

One of our most eminent authors, after calling attention to the accidents and injuries both to mother and child and after discussing their prevention and treatment, makes this comment: "In passing judgment, also, these things must be borne in mind; our medical schools do not as yet furnish enough material so that the general practitioner can get the proper training to meet all the emergencies that may arise; the surroundings of the labor case in the home, a low bed and none or inefficient assistance; the loss of sleep; the nervous wear and tear of a confinement case, and the state of mental fatigue in which the accoucheur often has to undertake the most dangerous and delicate operations, involving two lives; and, finally, many of the accidents named, have occurred in the hands of the best obstetricians the world has known."

At a recent meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons at Hotel Statler, St. Louis, one of the speakers was quoted as saying that more than 20,000 women die on the verge of motherhood in the U. S. each year as the result of lack of progress in obstetrics. He added that at least 28 per cent. of the deaths might have been prevented. He also said there should be less outdoor obstetrics and more hospital instruction and more clinical material. That there are more deaths from ignorance concerning obstetrics than from appendicitis. That the mortality in this connection ranks second to tuberculosis. That students in general medicine are taught more about diseases of the eye than obstetrics, and further that less than 10 per cent. of labors are abnormal.

The burden of this mortality undoubtedly rests most heavily upon that class of obstetrics now under discussion; and any measures that will lessen this death rate will not be in vain.

The ghost that has haunted obstetricians since the days of Holmes and Semmelweis, almost a century ago, has been puerperal infection. Normal labor has been defined as one in which delivery is accomplished without manual and instrumental interference, and without an undue amount of suffering or delay. An abnormal labor is a case of major surgery, differing from other forms of major surgery in that the preparation of the patient extends over a period of months rather than

a few days or hours. The mortality rate will not be lessened by determining the particular germ or bacterium that invades this forbidden field so much as will the determining of the source and prevention of such infection. In no field of medicine is the axiom "Prevention is better than Cure" more true than in this.

There are three principal sources of puerperal infection: the attendant, the patient and the environment. Doctors who attend this class of patients must of necessity make part of their calls with horses. Many times they are wrapped in horse-blankets to prevent perishing from cold. The dangers of saturating their clothing with infectious agents is so apparent that the mere mention of it is sufficient. This is only one of the prolific sources from which the doctor's clothing and person may become a source of great danger. This danger is not eliminated by suggesting a change of clothing and a bath before entering the sick room, for there are occasions when the doctor has but a few minutes' time for preparation and a delay would mean the sacrifice of one or both lives. A sterile pack of gown, cap, towels and gloves will in some measure mitigate this danger, but not altogether. We would hardly expect the surgeon to do a major operation under such circumstances with a minimum of fatalities.

The dangers of infection from the person of the patient are many and varied. It is not an easy matter to keep the alimentary canal from being a source of danger. The constipated condition due to pregnancy is not relieved in all patients by the same measures, and although a proper diet in most cases will suffice, there are others that require strenuous measures which keep up colonic or rectal irritation, which thereby becomes a focus of infection. Numerous observers with large hospital experience have pointed out the dangers of infection from the surface of the body of the patient. A tub bath especially in the multipara is positively dangerous if given during or immediately preceding labor. A moist sterile compress may be free from the preceding dangers but is not entirely ideal.

A pocket of pus in the tonsil, infected nasal cavities, sinuses and gums, have played great havoc with the heart and serous membranes of the joints and tendons and likewise may be the source of infection to the lying-in woman. Many a physician has been accused of the improper

care of the parturient woman who developed a fever from three to ten days after confinement, which fever had its origin in some obscure focus which would have been difficult to discover and impossible to avoid. Attending physicians, upon discovering fever, have gone directly to the uterus for its source; fearing that a portion of placenta or membranes had been retained when, as a matter of fact, such retention could do little or no harm if the infectious agents gained no admission.

The surroundings in the sick room in this class of practice cannot be made sterile nor anything approximating it. To enumerate crude efforts at sanitation in many of these cases would be tedious and a mere repetition of the experience of those who do this class of practice.

It is not unusual for the physician to be ushered into the sick room without any previous knowledge of the nature of the case to find himself confronted with a well-advanced labor. No time to prepare the patient, no time to prepare the surroundings, but plenty of time to be condemned if the patient does not do well.

Much of this class of practice occurs at times and places when and where professional assistance cannot be obtained. A recent writer in the *Journal of the A. M. A.* said: "True conservatism consists in being thoroughly posted on the condition of the patient in labor, allowing nature a reasonable time to effect delivery, but using proper interference at once, the moment there is a hitch. All the newer fads are sponsored by men who stand high in the profession, and it is reasonable to suppose that an obstetric expert in ideal surroundings can with impunity attempt things that cannot be imitated by the general practitioner in the home without assistance." What, then, may be asked is to become of the expectant mother and her child when such ideal conditions are unavailable?

More and more it is being demonstrated that many cases of the mentally delinquent and physically defective had their origin in some birth accidents; such as cranial blood-clot, severe or prolonged compression. It is hardly necessary to argue that much of this could be avoided if proper assistance and environment were always obtainable. According to recent Associated Press reports, in one of our neighboring states under a new law that has just become effective, every child found delinquent or incorrigible in juvenile courts

will have to run the gauntlet of a board of scientists before it is determined into which of the 15 state institutions it shall be sent. One group will examine it for physical faults, vision, hearing and the like; another will measure its mind in order to determine its mental age; another will report on what is found about the environments in which the child was brought up, and still another will examine it for nervous disorder. A clinical psychologist will determine from these results where the necessary treatment is to be found among the state institutions. This legislation was the result of a showing that because of mental defectives all institutions are crowded with wards of the state and the increase in expense is appalling.

That "every child has a right to be well-born and born well" is not only true but it has a further right to continue to be well. As an illustration, many a new-born babe has been washed to death during the first few days of its existence and this practice will continue where suitable precautions are not taken to prevent it. The careless, and in some cases filthy manner in which the umbilical cord is cared for, or rather neglected, is a fertile source of infant mortality. These, with other similar dangers, beset the infant pathway and in many instances the attending physician is powerless to prevent, for however well he may give directions, they are ignored as soon as he is safely away.

The so-called six weeks, three months, and six months colics are in most instances the result of faulty nursing during the lying-in period. It is not an infrequent occurrence that when digestive trouble accompanied with colic, vomiting or diarrhea comes on about the fifth day, when the mother is running a temperature. If the rise in temperature be mild it may continue for ten days or more and pass by unnoticed so far as the mother is concerned; but even a slight temperature will seriously depress the child. Too often these varying degrees of toxæmia are passed by as a sort of natural consequence of child-birth until the mother becomes a chronic invalid and the child is a confirmed weakling, or both perish and all for want of proper care at a critical time.

If the situation be reduced to an economic basis and the cost computed in terms of the "Almighty Dollar," it is plainly evident that a small part of the money expended for the care and keep of the wards of the State who are such

as a result of preventable mishaps during confinement would furnish at least a competent nurse for every confinement within the bounds of the commonwealth.

Since the best protection against tuberculosis is a normal physique, then may it well be argued that if the child be given a healthy start in the world and the mother given wholesome advice about her health and that of her child at this critical period of life that the first battle against the Great White Plague has been fought. If it is advisable to provide a hospital or sanitarium to care for the victims of that dreadful disease, how much more necessary that greater precautions be taken to prevent its inception.

Hospital service for these patients is impractical for several reasons: the domestic conditions are such that the wife and mother cannot well leave her home for a week or more. The nervous temperament of the pregnant woman calls for the comfort and rest that can only come with home surroundings. For that mental tranquility which is so essential to bolster up their courage for the ordeal of child-birth, "There is no place like Home." They are eager for all the beneficent advice and assistance they can obtain, but leave their firesides—never. The literature put out by the state and nation on "Pre-natal" and "Infant Care" has saved many lives and it is unfortunate that this wholesome advice is not placed in the hands of every expectant mother.

Of even greater importance and yet fitting very nicely into the program of proper literature is the Community Nurse. One who could administer an anesthetic or render such other assistance as the physician might need for the emergencies in these cases and to guard the health of mother and babe during confinement. Provision for financing both literature and nurse have already been made.

The framers of the Maternity Bill now before Congress evidently had no adequate conception either of the wishes or necessities of these people. Its ponderous machinery could not be put in operation without enormous expense and it would be little less than criminal to add to the already heavy burdens of taxation and in many cases thereby deprive them of the very nourishment they so much need.

The term "Community Nurse" as herein used is not to be confused with the term "Nurse" as

used in the Maternity Bill. The privacy of the home should not be invaded nor disturbed but the services of competent help should be made available when so desired, either by the attending physician or patient. Where the patient is not financially able to meet such expense it should be met by the state as a matter of economy. Nowhere could money be spent more wisely than in safeguarding the life and health of the mother and new-born babe. It is unfortunate, particularly at the present time, that such strenuous efforts should be made to Bolshevize the whole maternity question by ignoring the sanctity of the lying-in chamber and home and usurp the functions of the family physician with a political machine.

"Do men gather grapes of thorns, or figs of thistles?" "For of thorns men do not gather figs nor of a bramble bush a grape." No more can be expected the development of sturdy American individual integrity from a home, blighted with the breath of socialism.

The attempt to supplant that confidential relation between the family physician and his patrons, builded upon years of confidence and trust, with mechanical advice administered by a board of political dictators, is un-American and foreign to all those finer sentiments which constitute a major part of good citizenship. The people will be loath to accept state control of their birthright in view of the official incompetency and dishonesty as exemplified during the world war. At a dangerous curve in the road hangs this sign, "Life is Sweet, Drive Slow." With the innovation and diametrical changes that are now being agitated and proposed by some of our law-makers as regards the care and treatment of the sick, it might be well to hang in a conspicuous place that same warning, "Life is Sweet, Drive Slow."

Thousands upon thousands of dollars are spent annually to improve the quality of horses, cattle, swine and other livestock. Is it worth any less to have healthy mothers look into the faces of healthy babes and there see the master-minds of the next generation, or look upon their healthy bodies and see the brawn and muscle of the future?

The hope for the betterment of present conditions will take on new inspiration when the best baby will take as big a prize as the best male pig.

If this commonwealth is to have men and women, physically and mentally fit to perform the duties of citizenship and be qualified to become leaders in the affairs of state, they must come from healthy mothers and under normal conditions.

The parturient woman is entitled to every agency that will lessen her danger and mitigate the agonies of child-birth.

The child demands every consideration that will best fit it for the duties of life.

SOME REMARKS ON TREATMENT OF NON-ACTIVE CLINICAL TUBERCULOSIS*

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All who have had clinical tuberculosis must live a regulated life ever after. Relapse to activity is an ever-present menace. Absolute cures are rare, if any, and there are no definite signs to distinguish them from the *non-active* and *arrested* cases or those who have recovered sufficiently to resume their usual occupation.

A case is non-active when unlimited exercise causes no fever or undue fatigue. This is the final test, relied upon in sanatoria for tuberculosis in deciding whether a given case is active or non-active. The fact that the case is decided to be non-active does not mean that he needs treatment no longer. He must remain under observation as long as he lives.

A thorough and intelligent understanding of the situation by the patient is necessary in order to assure his co-operation. Those who have had sanatorium treatment are educated as to the modes of their new life. Those who have had no such chance must be taught by the physician or by a well-informed nurse. If the physician is painstaking and has capacity to inspire his patient with his own confidence and enthusiasm and the patient has enough good sense and staying qualities, chances of recovery or continued good health are excellent. But if the physician in charge knows only a few general principles of treatment and not much as to details, he will not be in position to keep up the morale of his patient. It is easy enough to recommend fresh air, good food, and rest and give general directions

in vague terms and leave the patient to work out his own salvation, but there would be more probability of favorable results if you visited your patient in his own surroundings, entering into his environment to help solve his problems with patient and painstaking interest. Visit patient's home and discuss and offer advice concerning every detail of his new life, viz.: bed, bedroom, clothing, diet, hour of rest, time and kind of recreation, occupation, manner of utilization of the time outside the working hours, Sundays, holidays, etc. It is a good plan to go over the routine of patient's life carefully and point out where saving in energy, time, and money may be effected. The following is a case in point: Patient, a married woman with two children, was not doing well. On careful inquiry as to routine of her life, I found that she was getting up at 5 a. m. every morning to prepare breakfast for her husband and brother. I suggested that her husband, a laborer, learn how to get his own breakfast and that she remain in bed till 7 a. m. or later. With this change and some medication she is able to do her own housework and still remains a non-active case.

Some patients may eventually find the environment and the occupation that will fit their condition but many must carry on their fight for life in more or less adverse environment. Even in tenement districts of large cities this fight can be carried on with a considerable degree of success under wise guidance.

Occupation: An occupation is necessary for the well-being of all non-active tuberculosis cases. There are few who may follow an occupation that interests them and fits their physical ability. But by far a great majority must follow a gainful occupation to enable them to support themselves and their dependents in comfort. To them it is an economic as well as a therapeutic necessity.

Change in occupation is not advisable unless it requires hard physical labor or is of injurious nature. There is no objection to any occupation solely because it is an indoor occupation. It is a hardship to learn a new trade or business. Outside occupations are to be recommended only if they are not exhausting and require too long hours. It must be remembered that some cases will not do well if exposed to unmodified outside weather conditions.

Farming is hard work, involves exhausting

*Read before Coles-Cumberland Medical Society.

manual labor, long hours and yields comparatively meager returns for a man of limited capacity for work. It would be a mistake to take a man from a sedentary occupation and put him to work on a farm. He would do better if he would go back to his old occupation. Experimental attempts at establishing industrial colonies of tuberculous workers are being made so that everyone may be given work suitable to his capacity. This is a movement in the right direction. Of course, such enterprises cannot compete with similar enterprises conducted in the usual plan and must have a large endowment to perpetuate it.

Rest. Some patients may have control of their working hours and other conditions. A vast majority of them must take what they can get. All can have control of the time outside of working hours. On the regulation and utilization of this time, the patient's future depends. *Rest*, both physical and mental, is a necessity for him, probably the most important measure in combating tuberculosis. He may take a brief rest after his noon meal. He may go to bed early and make his night's rest as long as possible. If necessary, he may spend his holidays and Sundays in bed. He must be made to understand that he cannot afford to burn the candle carelessly even at one end, much less to burn it at both ends. If the amount of rest thus prescribed does not relieve the fatigue of the day the patient must take a longer rest to avoid relapse. Even those apparently well should be warned against too much exercise; for instance, running, lifting heavy weights, climbing hills and taking deep and long breaths.

Diet. Three substantial and well-balanced meals a day are usually sufficient. In some cases a glass of milk or raw or soft-cooked eggs may be taken between meals or at night with advantage. Stuffing must be avoided. It very often creates disgust for food after a while and defeats the end it aims to attain. In the past these cases have been given excessive amounts of protein which is not only unnecessary but injurious. Dietetic rules must always be modified to conform to idiosyncrasy of each patient. It is good practice to urge the patient to eat a good meal and finish it up with a glass of milk. Fresh vegetables and fruits must form an important part of the diet.

Medical Treatment. It was not very many years ago that the tuberculous received no other treatment but medicinal. To the invalid the

magic of the cure was in the medicine. He expected from it all that he needed and did not seek other means of cure. This gave a fertile field to charlatans and patent medicine fakers.

Since that time, Dettweiler and Trudeau have taught us important lessons in the treatment of tuberculosis. There was a reaction. Use of any medicines in the treatment of tuberculosis was decried. This was to be expected. The evil had grown so great, the remedy had to be drastic. Time proves everything. It has decreed that chemotherapy has an important place in the treatment of clinical tuberculosis. Creosote with calcium, arsenic, iron, iodine, nux vomica, cod-liver oil, etc., offer material help in many cases. These medicinal agents may be used separately or in various combinations. They will increase the weight and strength of the patient. When one prescription ceases to effect any further improvement it should be replaced by another or discontinued indefinitely, especially if patient can do his work without undue fatigue. I have seen many men and women treated with medicine and some degrees of regulation of their life, restored to their work and usefulness. It is one of the helpful agencies in the treatment of tuberculosis. Properly regulated life is more important than any medicinal agent. Medicines are dangerous to those who expect the cure from it and thereby neglect other vital means to recovery. Medicines are helpful if patient is not misled thereby. There are cases that cannot carry out the necessary regulations, these should not be denied the help that medicines can give them.

Fresh Air. Not only must the patient breathe fresh air, his body also must be bathed in it. The contact of fresh air with the body is just as important as the quality of the air utilized in the respiratory act. It may be even more important. During sultry months you can make the air fresher and more stimulating by stirring it up with a fan. This also applies to the air in a building. Ventilation by open doors and windows is preferable to any ventilating system known to architects. Uniformity of temperature is not desirable. Strong currents of air are harmful, but the impact of gentler currents of fresh and cool air with the patient's face is productive of general stimulating and toning effect on the body. Tuberculosis cases do better in cold season; however damp and cold the weather may be, it will do no harm if patient is properly protected by clothing

and bed-covers. July and August are the trying months for them. Tuberculous patients should take their vacation during these months and if possible spend it in a cooler climate. Those whose employment keeps them indoors can compensate for this deprivation by spending their sleeping and resting hours in the open.

The Economic Station of the Patient is of great prognostic value. A patient who has himself and dependents to support, who must avoid hard work and long hours, usually cannot earn enough to keep himself and his dependents in comfort. He works harder than he should and what is worse, he worries and a relapse follows and patient and family are thrown on public or private charity. Economic help at the right time is a most effective treatment. The decrease in mortality from tuberculosis during the past several years may have been due to an appreciable extent to the rise in wage scale of laborers and industrials.

Mental Training. Cultivation of proper mental attitude is a very important factor in successful treatment of tuberculosis in any stage.

Some would have the patient believe that he is well and as fit to take up the burden of life as any man. Under such mental attitude no regulations could be imposed and if attempted could not be carried out. The patient would be living in a fool's paradise, with the usual disastrous outcome.

It is a painful shock to anyone to be told that he has tuberculosis. But it is a step that must be taken. The real situation should be made plain to the patient. There may be exceptions, but this is the rule. A physician must know how to guard his patient against despondency, attitude of invalidism and other dangerous pitfalls. Soon the shock subsides in a patient of average mentality and he is ready to give you his full co-operation.

These patients have a life-long handicap; the sooner they understand and concede this, the better it will be for them. Under the regulations of his new life, he need not necessarily abandon his ambition or change his outlook on life. Adjustments will soon follow and the patient will soon recover his hopeful mental state.

There is plenty of room for optimism. Tuberculosis is not incompatible with long and useful life and high degree of achievement.

HYPOTHYROIDISM AND THE GENERAL PRACTITIONER*

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The literature on the thyroid gland is devoted largely to discussions of the hyper-function of the gland or to disturbances of its anatomy. Such terms as toxic adenoma, toxic goiter, hyperthyroidism, Basedowian syndrome, simple hypertrophy, are the ones most frequently met. Discussions of hypo-thyroidism are relatively few in number.

This paper is a resumé of the thyroid disturbances met in general practice in Chicago within the last year. There are 10 cases of hyperthyroidism and 35 cases of hypo-thyroidism. I believe this about represents the relative frequency of the two conditions. That is, I believe that we have been educated to look for hyperthyroidism and consequently recognize it when a case comes to us; but that we have paid so little attention to the opposite condition that many cases are unrecognized and consequently untreated or treated for some other condition. An old practitioner said to me recently that he did not believe that he saw as many cases of this as I did, unless—and then he hit the nail square on the head—many of the old chronics that he saw belonged to this category. And that is true. We see many cases of this condition but do not recognize it because we are not thinking of it or are thinking of it as seen only in the cretins or in myxedema. This seems unfortunate for, while the treatment of hyperthyroidism is a disputed question and the results of any treatment more or less unsatisfactory, the opposite is true of the treatment of hypo-thyroidism, the results being excellent for the most part, indeed many of them brilliant.

It should be noted that these cases occurred in a private general practice. They are presented from the standpoint of the general practitioner, consequently they have not been worked out with that degree of scientific accuracy and in such detail as is possible in a hospital practice. No diagnostic or therapeutic measure was employed that is not accessible to any general practitioner regardless of his location. This holds true even of the measurement of the basal meta-

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bolic rate, as the types of apparatus now on the market are so simple that any high school pupil can be taught to operate them in a very short time.

The cases under observation were all ambulatory, most of them working either in business, profession, or as busy housewives. As their illness did not incapacitate them they could not be persuaded to go to bed or to the hospital for a more extensive study of their condition. The diagnosis was made from the history, symptoms, physical findings, laboratory work and a determination of the basal metabolic rate. The latter was measured by the Sanborn Benedict portable apparatus or by the Sanborn Handy apparatus. Determinations were made by my assistants, who received their training in the department of Home Economics of the University of Chicago.

Tierney, in a recent paper, stated that variations of 10 per cent. above or 7 per cent. below the normal rate should not be regarded as pathologic. This has been accepted as a criterion in this paper. Although many men, Tierney himself among them, now feel that variations below are of much more significance than those above the normal basal metabolic rate.

In the cases here reported the thyroid was not always the only gland at fault. In some it was not the greatest offender, but in all the relief of the thyroid condition was followed by relief of some of the symptoms, so that the case was either cured, relieved or clarified of some of its puzzling features.

Sajous in Tice's "Practice of Medicine" names as the symptoms of this condition the following:

So-called rheumatic pains in the morning,
Somnolence worse in the morning,
Chilliness,
Premature ageing and grayness of the hair,
Tendency to alopecia, characteristic in the lateral portion of the eye-brows,
Waxy hue of the facial skin,
Anemia,
Early loosening and caries of the teeth,
Bleeding and receding gums,
Persistent congestion of the mucosa of the upper respiratory tract,
Menstrual disturbances i. e. amenorrhea or metrorrhagia, impotence,
Various forms of tinnitus.

To these might be added, obesity distributed generally over the body with supra-clavicular and dorsal finger padding and cuffing about the wrists and ankles, and a lowering of the basal metabolic rate.

Nephritis is occasionally of hypo-thyroid origin. That is, cases having albumin and casts in the urine and a retinitis closely resembling the

albuminuric variety are cleared up by the administration of thyroid substance. Percy's cure or treatment of nephritis probably owed its success to the fact that he encountered several cases of this kind.

Forty-five cases form the basis of this report. Of these, ten were cases of hyper-thyroidism, all of whom were women ranging in age from twenty-one to sixty-five years. Curiously the highest rate—70 per cent. plus—occurred in the oldest. And the lowest rate—15 per cent. plus—occurred in the youngest. An interesting feature of this latter case was that a surgeon had scheduled her for a thyroidectomy the following morning but refused to operate when he found the metabolic rate so slightly elevated. These are mentioned only to show the comparative infrequency with which cases of hyper-thyroidism are met in general practice, even in a goiter zone.

There were thirty-five cases of hypo-thyroidism. Eight of these occurred in men and twenty-seven in women. The great preponderance of women over men makes one wonder if the condition really occurs in that relative frequency in the two sexes or if the men are slower to consult the doctor. My own observations incline me to the latter belief.

Of the women: Three were between the ages of fifteen and twenty-five,

Eight between twenty-five and thirty-five,

Nine between thirty-five and forty-five,

Five between forty-five and fifty-five,

Two were sixty-five years of age,

Seventeen were married and living with their husbands,

Eight were unmarried and two were widows.

None of them has had more than one child born at term; four have never been pregnant. The number of miscarriages sustained by the group could not be ascertained.

Their complaints can be summarized as follows:

Eleven were nervous or irritable,

Twelve had pain located in various places, with some it was headache, with others it was in the hands and feet, but it was most often located between the shoulders or in the lumbar region (thyro-ovarian syndrome)?

Eighteen complained of the loss of power of concentration,

Nine were easily tired or lacked the ability for any continued exertion,

Eight were depressed, either much of the time or easily so.

One woman stated that she suffered from premenstrual depression at every second period.

Nine had hot flashes,

Ten were unquestionably affected by the changes incident to the menopause. Four of these were past their periods from one to fifteen years, four were suffering from menstrual irregularities and two were probably in what Maranon terms the pre-menopause stage of the critical age.

The severity of their thyroid symptoms, i. e., symptoms that could be laid to thyroid deficiency or were cured by thyroid medication, were almost parallel to the basal metabolic rate. The lower the rate the more severe the symptoms.

Detailed report of some cases:

Mrs. R., married, had the lowest rate found among the women—30 per cent minus. She was thirty-five years of age and complained of too frequent and profuse menstrual periods. These occurred every seventeen days and were accompanied by severe headache, sometimes frontal and again occipital in location, and pain in the left lower quadrant of the abdomen without nausea or vomiting. She was nervous and irritable and very susceptible to colds. In the past few years she had gained fifteen or twenty pounds in weight. Her sleep was good, appetite fair and bowels regular. She had one child living and well and had one miscarriage. There was nothing of interest in her past except that she had had an infected sinus for about fifteen years. Its drainage and cure did not affect her other troubles in any way. She had always suffered with the abdominal pain at her periods but in the last five years it had become more severe and the headaches had been added to it.

Examination: she was five feet five inches in height and weighed one hundred and fifty pounds. Her color was sallow rather than pale, there was some dryness of the skin and the nails had become rather brittle. There was no thinning of the hair or brows but most of the hair had turned gray in the previous two years. There was some supraclavicular and dorsal finger padding, the wrists and ankles were rather heavy and there was some puffiness, but no pitting of the legs. Reflexes, gait and station were normal. There was nothing pathologic in the chest or abdomen. The left ovary seemed slightly larger than the right. There was a considerable leucorrheal discharge but no other evidence of a gonorrheal infection could be found. The urine was low in specific gravity but otherwise normal. The Wassermann was negative, hemoglobin 75 per cent,

Treatment: ovarian and mammary therapy did not reduce the menorrhagia nor lengthen the intervals between periods. Hypodermic injections of pituitrin relieved the headaches temporarily. She was then given thyroid in five grain doses t. i. d. and in three months the intervals had increased to twenty-seven days and she was free from headaches and abdominal pain at her periods. It might be mentioned that a surgeon had advised and the patient was about ready to undergo a complete hysterectomy in hope that she might thereby obtain some relief. After three months thyroid was reduced to one grain t. i. d. which she now takes three weeks out of each month with complete relief of all symptoms.

One case in this series is classed as a hypothyroid in spite of the fact that her metabolic rate was within normal limits each of the several times it was taken in the course of a year and a half. She had a large thyroid, rather prominent eyes, was very nervous, and when nervous or excited from any cause complained of a sensation as of a string about her throat. Following Plummer's suggestion it was thought this might be a case of compensatory hypertrophy. On this basis she was given thyroid in one grain doses t. i. d. with complete relief of the choking sensation within one week. Medication was continued for several months, but there was no reduction in the size of the thyroid, although her nervousness subsided somewhat and there was an improvement in her general health.

Mr. G.—bachelor, aged 35 years, a civil engineer, complained of loss of "pep." He could do neither mental nor physical work without very quickly becoming exhausted. This dated back to seven years before when he began taking mercury for a syphilitic infection. He had a good deal of pain about his neck and shoulders and a general stiffness of the muscles. His eyes had become deep set and he complained of pain in the eyes and back of them. He had little power of concentration. His sleep was disturbed and during the previous Summer he had suffered from insomnia. He had lost 30 pounds since his trouble began but at the time of coming under observation was gaining slightly. His appetite was fair and bowels regular. Except for the luetic infection there was nothing of interest in his past or family history.

Examination:—He was tall and thin, no superfluous flesh, his hair was thin, but not falling out and there was no greyness. Color somewhat pale. Chest and abdomen were negative. Eyes, ears, nose and throat were negative except that the eyes were very deep set. Blood normal, Wassermann negative. The urine had a specific gravity of 1035 and contained a large amount of indican. The blood pressure was

normal i. e. 130-80-50. His metabolic rate was minus 31 per cent.

Treatment:—He was put on a low protein diet to free him from indican, the restriction being entirely in the animal proteins. Medication consisted of thyroxin grain 1/60 to 1/80 t. i. d., this was later changed to thyroid grain I t. i. d. and this was increased to 2½ grains t. i. d. He did better on the thyroid than on the thyroxin. He improved a great deal in that he gained some weight, a good deal of mental and physical strength and felt much better. He still complains of pain in his eyes and that the skin of his forehead feels as if it were drawn too tightly around his head.

Mrs. C., aged 45 years, married. Her complaint was that she was tired all the time. She had some precordial distress, a great deal of menstrual depression, slight leucorrheal discharge and a few hot flashes. Her appetite was good, sleep fair and bowels regular. Her trouble began about five years before coming under my care. She was told at that time that she had a colitis. There was a slight amount of abdominal pain when I first saw her but no passage of blood or mucous. She had had one miscarriage and had been operated on eleven years before for a cystic ovary which was removed and some adhesions were broken up.

Examination: She was a pale woman, rather plump in figure. She had gained some weight since her present trouble began. There was some supra-clavicular and dorsal finger padding. The skin was dry, some narrowing of the palpebral slits, no malar flush, no thinning of the eyebrows nor falling hair. Her pulse was 75 to 85, her temperature was 97 to 98, her blood pressure 130-80-50. The urine was low in specific gravity but otherwise normal. The blood showed no abnormalities. The basal metabolic rate was minus 23 per cent.

Treatment: Thyroid in one and sometimes two grain doses combined with ovarian substance in five grain doses t. i. d. was given over a period of three months. During this time she lost seventeen pounds in weight and felt much better in every way, losing her depression and sense of tiredness. She became able to do all of her own work. She then stopped treatment and in two months her symptoms had nearly all returned. The same medication again relieved her. The dose of thyroid was regulated largely by the rapidity of her pulse and her sense of nervousness and the presence or absence of a tremor in the outstretched hand.

Miss Ethel H.: aged 27 years. Her chief complaint was of weakness. She also had considerable pain in the upper right quadrant of the abdomen not related to the taking of food. This she had been told was due to an infected gall bladder. She was losing weight, had a bad taste in her mouth most of the time and was too weak and miserable to keep a position. This trouble began about one and a half years before she was seen. Her past and family history threw no light on her present trouble.

Examination: She was tall and very thin. There was no evidence of padding anywhere. She was somewhat anemic. There was no thinning of the hair or eyebrows, no disturbance of the menstrual function. The chest and abdomen were normal. The gait station and reflexes were normal. The urine and blood were normal except for a slight anemia of the latter and a low specific gravity of the former. Her basal metabolic rate was minus 24 per cent.

Treatment: This consisted of thyroid in one grain doses t. i. d. To use her own expression she was a new woman in a month after she began taking it. She now takes thyroid about two weeks out of each month. Her appearance when first seen was far from that of a typical hypo-thyroid individual and more like that of a rather far advanced consumptive. She had so few typical symptoms of the hypo-thyroid condition that I do not believe one could have justified that diagnosis without a knowledge of her metabolic rate.

Mr. L., aged 53 years, a bachelor, came under observation in May, 1918. He complained of "muscular rheumatism" by which term he indicated pains in back, arms, legs, and shoulders. He also lacked both mental and physical energy. These complaints had been present about seven years. His past and family history had no apparent bearing on his present trouble and his habits could not be blamed for it. He had lost several teeth in a search for a focus of infection.

Examination: His eyes, ears, nose and throat were normal. Nothing abnormal could be found in the chest or abdomen. The reflexes, gait and station were normal. The temperature, pulse and respiration were normal as was his blood pressure. He appeared somewhat anemic-hemoglobin 80 per cent. There was some supra-clavicular but no dorsal finger padding. The skin was unusually soft for a man. The hair was not dry nor falling out. His movements both mental and physical were rather slow but there seemed no lack of the power of concentration. There was nothing pathologic in the blood or urine and the Wassermann was negative. His basal metabolic rate was minus 23 per cent.

Treatment: This consisted of thyroid in various doses from one to three grains t. i. d. continued over many months. His improvement was slow but steady. Occasionally supra-renal and pituitary anterior lobe were added to the thyroid. He seemed to do better on the polyglandular formula than on the thyroid alone.

SUMMARY

An attempt has been made to describe a few cases that were rather typical of the condition under discussion as well as some that were typical. Mrs. R. and Mrs. C. are as nearly typical hypo-thyroid individuals as one will often see. Miss Ethel H. is far from what one expects to see in that condition, but the metabolic rate and the re-

sults of treatment confirm the diagnosis. Mr. G. is far from classical in his appearance, but the therapeutic test confirmed this diagnosis also.

The medication was almost entirely of the pluri-glandular variety. The glands used being the thyroid, supra-renal, pituitary and ovary. The dosage and the combinations of glands varied in each case.

Those complaining of pains between their shoulders or in the lumbar region exhibited a considerable degree of indicanuria. Whether this was a cause, effect or a coincidence I am unable to state. These cases were placed on a restricted proteid diet. The restriction being in the animal proteids. The relief of the pains and the disappearance of the indican was usually coincident.

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EPIGASTRIC HERNIA*

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Epigastric herniae are relatively infrequent. Nevertheless, because of the variation of symptoms for which they are responsible, the lesions with which they are associated, and the frequency they are overlooked, it is of importance that they be given due consideration in dealing with the upper abdomen.

According to various observers, they constitute from 0.6 to 3 per cent. of all herniae. From a review of my records for the past 10 years, including private cases, together with those operated upon in the Army and Public Health Hospitals, I find 2.6 per cent. of all herniae, were epigastric.

Only too often are they overlooked, and the patient, because of resulting distressing symptoms, is wont to go from one physician to another in search for relief for what he terms stomach trouble and the resulting neurasthenia, with the result, that he becomes a willing prey to the various paths and charlatans.

The upper triangular area of the peritoneum, which has its apex at the umbilicus, contains a marked deposit of fat. It is possible that this may follow the blood vessels out through the abdominal wall: Again—for various reasons, as a congenital weakness or defects in the linea alba, anomalies in the ventral closure, acute or chronic trauma or emaciation, an oval slit, usually transverse, in or to either side of the fibrous tissue of the linea alba, may occur through which follows a protrusion of this properitoneal fat.

The resulting mass, usually small, may attain large proportions. In its early stage, it consists only of a bundle of fat, without any enveloping membrane and differs but slightly from a simple lipoma with which it is easily confused. But in its course of development, the parietal peritoneum, to which it is attached, is pulled into the rent and marks the formation of a rudimentary or typical hernial sac, which, may be empty, or contain a segment of the omentum and more rarely a section of the bowel, and even a portion of the stomach.

The hernia in question is not to be confused

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with the post-operative or other ventral herniae. The typical epigastric hernia is most often found in the linea alba, though it may occur on either side, between the umbilicus and ensiform cartilage, usually about 10 cm. above the former point. Differing from below the naval, where the linea alba is narrow and thick, the upper portion is wider and thinner.

They occur in children and adults alike. Pregnancy is certainly not a predominating factor as the condition is vastly more frequent in males.

Strangulation is an uncommon sequel, but enough cases have been reported to warrant the consideration of this condition as an important factor.

As the adherent omentum prevents the normal excursion of the bowel and stomach, gastric symptoms follow. If these be constant, the irritation will be sufficient to completely disable the patient. Even when the omentum is not adherent, similar symptoms may be present, but some other factor is then responsible for the clinical picture. In fact a hernia consisting of a simple adherent fat pedicle is not infrequently found to have fully as grave symptoms as the more advanced type and emphasizes the importance of a simple epigastric hernia.

Anatomically considered, we have four types:

1. Where only a small pedicle of fat protrudes through a slit in or near the linea alba.
2. Where a portion of the adherent peritoneum is drawn up with the fat pedicle, causing the formation of a rudimentary or typical sac.
3. Where a segment of omentum is found to be contained in the sac.
4. When together with the omentum a segment of bowel or stomach or both are contained in the sac.

Many cases of ulcer of the stomach associated with epigastric hernia have been reported. The severe pain frequently found in the hernia of the linea alba indicates that there must necessarily be a marked disturbance of both nerves and vessels of the included mass. The possibility that ulcer may be caused by such nerve and vessel injuries is not a disputed fact. As the pyloric end of the stomach has the poorest blood supply in comparison to the rest of the organ, this region is affected more easily by the formation of the thrombi. This may explain why injuries of the nerves and blood vessels of the compressed omen-

tum may cause changes in the stomach wall and predispose to ulcer formation.

From a recent report from one clinic, citing 605 cases of ulcer of the pylorus and duodenum operated upon during a period of 10 years, in 2.3 per cent there was found a hernia of the linea alba. During the same period 40 operations were performed for hernia of the linea alba, and in 3.5 per cent of these cases was found an ulcer of the stomach or duodenum.

These complications are associated only with more advanced cases, and for this reason early recognition and intervention is necessary to prevent these sequelæ.

The symptoms resulting from epigastric hernia vary from the slightest discomfort because of pressure or irritation of the tumor by the clothing, to most severe gastro-intestinal disturbances, pain after eating, belching and irregular appetite, loss of weight, vomiting, dragging pains in the epigastrium and other associated symptoms. As mentioned, no special symptoms are associated with one type of hernia only, for the simplest form, with no visceral involvement may cause equally grave digestive disturbances with resulting nervous and mental complications, and when not recognized and properly treated, the patient becomes a burden to himself and his fellowmen. To illustrate, I cite two cases:

Case 1. A. L., aged 22 years, male, discharged soldier, a patient at the U. S. Marine Hospital, Chicago. Chief complaint, headache, nausea and vomiting, pain immediately after eating and increasing in severity upon exercising. X-ray finding and analysis of stomach contents negative. This condition had evidently existed more or less in severity for several years. A physical examination revealed nothing of importance except a mass, 3 cm. in diameter in the linea alba, above the umbilicus, which partially receded when he lay on his back. A diagnosis of epigastric hernia was made and under local anesthesia the mass was exposed. Attached to a protruding fat pedicle was found a definite sac, which when freed and opened was found to contain a segment of omentum. This was carefully separated, tied off and dropped back into the abdomen. After caring for the sac, the aperture about 3 cm. long, was closed by overlapping the edges of fascia. Complete relief from his former symptoms resulted.

Case 2. J. W., aged 24 years, laborer, patient at the Augustana Hospital; Chief complaint, severe intermittent epigastric pain, headache and nervousness. For several years he had been treated for

various stomach and intestinal disorders, but with ephemeral relief. The pain increased upon taking food and overexertion brought on severe attacks of pain, nausea and often vomiting; headaches were present at intervals. During the course of a physical examination, a mass 1 cm. in diameter was found three inches above the navel. Apparently this had been present for years, but had never been considered of any moment. The tumor mass was movable and slightly reduceable. Diagnosis: Epigastric hernia.

Under local anesthesia the mass was incised and was found to consist of a nodule of fat, without any covering, protruding through an opening in the linea alba, from the pro-peritoneal space behind. After separating it from its peritoneal attachment it was ligated and tied off. No definite sac was present but the peritoneum had merely been pulled forward by the attached fat pedicle and when freed, readily dropped back into place. The muscle and fascia were closed by slightly overlapping the edges. Complete relief from the former symptoms followed.

Treatment. The treatment of these herniae is mainly surgical. Even though it were possible to reduce the mass and retain it with a truss such a measure is not to be recommended, as the local irritation often produces violent symptoms. In case there be evidence of associated ulcer or other gastro-intestinal lesions, nothing short of a complete exploration should be considered.

In the large majority of cases the mass can be exposed under local anesthesia. If the tumor is soft and fluctuating, great care must be exercised in making the incision, for while this fluctuation usually proves to be a broken down fat tumor, yet the possibility of a protruding sac containing a section of bowel must not be overlooked. After a free incision has been made through the skin, the edges of the split aponeurosis are reached and separated. The bundle of fat is then lifted out and examined for an adherent or contained sac with its possible contents.

If nothing but a fat pedicle is found, there will be no enveloping membrane to dissect, but the entire operation consists of ligating and dividing the pedicle at its peritoneal origin and dropping the stump back into its normal place.

If a sac is present, the same procedure is to be carried out as in dealing with any other hernia. When the omentum is found to be adherent, it is usually of a long standing with the consequence that the involved portion has been transformed from a broad apron like structure, into a dense mass, no longer serviceable as a protecting sheath. This is best transfixed with a

suture and cut off. The stump can then be safely dropped back into the abdominal cavity. The sac is then ligated and treated just as in caring for any hernial sac. It is of great importance to carefully separate each layer of the abdominal wall and to get rid of every portion of fat before attempting closure.

If the opening or rent is large it should be closed by overlapping the fascia just as is done for the radical cure of a ventral hernia. This will close the defect absolutely and the danger of a recurrence is nil.

Summary. The frequency with which epigastric hernia occurs, the severe symptoms produced, the association with ulcer, the often mistaken diagnosis, the ease with which they can be repaired and the usual complete relief which follows from all former symptoms makes it worth while to keep this condition in mind in dealing with symptoms and lesions involving the upper abdomen.

PSYCHIATRY AND THE PHYSICIAN*

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The following remarks are submitted with a view of placing before the profession the importance of the study of psychiatry even though one has no intention of becoming a psychiatrist. The writer wishes to show that even the country practitioner meets psychiatric conditions more often than malaria and pneumonia. Every case with which the physician comes in contact possesses a psychological if not a psychiatric element. A proper knowledge of these subjects enables the physician to satisfy his patient, relieve his anxiety and do much to restore him to bodily and physical health.

The writer will hereafter purposely avoid a discussion of the frank types of insanity because they are of less importance to the practitioner than the more obscure cases which may not receive a commitment to a hospital for the insane. The obscure cases are met frequently in the pursuit of a professional career while the frank cases are only under the physicians' observation pending a commitment. Frank cases are usually recognized by the laity while the physician is only called to legalize the commitment.

This is a plea for the study of psychiatry not

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for the purpose of preparing the physician for the treatment of patent cases of insanity but for a more satisfactory method of handling the borderline cases that are not committed to our hospitals and remain so perplexing to the practitioner. For want of a proper recognition of the mental element involved in the last named class of cases the physician often suffers in reputation and fails in treatment.

Psychiatry may be defined briefly as "A study or treatment of diseases of the mind." A disease of the mind may or may not reach the degree of derangement usually recognized in a legal sense as insanity.

An individual with a deranged mind may be in pursuit of a prosperous business career or may be confined in an asylum for the insane.

The mental disorder may take the form of habitual prolixity in description of symptoms or that of the raving maniac; the hysterical female or the mute dementia praecox; the petty criminal or the paranoiac who resorts to murder.

The disordered mental processes may effect the individual or people in mass. Abnormal processes may cause an individual to absent himself from the society of his friends and neighbors or may move the mob to violence.

The mental disorder may affect either the intellect, will or sensibilities. Either one or all of these faculties may be deranged. The derangement may affect any possible combination of these faculties.

The recognition of these derangements and an understanding of their mode of action and resultants are necessary whether in business affairs or in the discharge of professional duties. Professional or business success depends largely upon a knowledge of these processes whether acquired academically or in a practical way.

Symptoms of diseases are divided into subjective and objective.

A careful diagnostician can logically reason from an objective symptom back to its cause but the effort to retrace the path of a subjective symptom back to its cause often leads through a tangled maze of doubts and uncertainties. The difficulties encountered here are due to the fact that every statement of subjective symptoms carries with it a personal element which must be taken into consideration before due weight can be given the symptom as described. Some patients give a

very brief statement of symptoms while others are noted for their prolixity; some state in a brief manner the facts desired by the examiner while others seem obsessed with a determination to tell only such facts as are uppermost in their minds and again others will give a lengthy recital of symptoms that are entirely psychical. It can readily be seen that a knowledge of psychical processes alone will enable the examiner to winnow the wheat from the chaff and separate the important from the irrelevant facts. A careful study of psychological processes will help one understand how the instincts are adjusted to conditions of modern society; the dominance of instinct in mass behavior; and the importance of repression in dreams and the psychoneurosis. The psychoneuroses of common life are varied in character and their relation to the sexual complexes should receive careful consideration.

A careful study of neurasthenia will show that this neurosis may be the resultant of a conflict between the long continued practice of onanism and the moral sense of right.

The opportunity for the study of mental processes and submerged complexes through the medium of dreams should not be overlooked. Freud found that "The dream is not a senseless jumble, but a perfect mechanism, and when analyzed is found to contain the fulfilment of a wish." Professor Freud's theory of wish fulfilment may be stated as follows: "In brief this theory states that whatever is denied in reality we can, nevertheless, realize in some other way. In sleep the poor man has much money; the prisoner his freedom; the lame man runs races and the ambitious man sees himself at the goal of his ambition. In other words, the dream represents the realization of a wish; its motive is a wish."

The field of investigation includes the group of anxiety neurosis and its importance to the general practitioner may be understood when the following statement by Freud is borne in mind: "Under certain circumstances, sexual excitations arise that cannot follow their natural course of leading to either physical gratification or even conscious desire for such; being deflected from their aim they manifest themselves mentally as morbid anxiety."

Since the laboratory methods of the pathologist are unable to demonstrate that the origin of hys-

teria lies in the field of physical abnormalities it remains for the psychiatrist to show that this syndrome results from a disturbance of the function of nerve cells.

The importance of the study of hysteria from a psychiatric standpoint will be realized when it is remembered that the hysteric is unduly influenced by the past; is living in memories of the past; is detached from the world of realities and resists all tendencies to recovery.

Psychotic symptoms play an important part in the large class of patients suffering from derangements of the thyroid. Cases of hypothyroidism suffer from a rapidly progressing retardation of all psychic processes. The mental symptoms vary in cases of hyperthyroidism from mild depression to manic excitement and increased apprehension. Likewise a fairly definite mental syndrome characterizes derangement of any one of the interdependent system of ductless glands.

The number of physical diseases or conditions characterized by mental symptoms are very numerous. The physician meets them almost daily. They are found in certain infectious diseases, conditions of exhaustion and certain organic diseases of non-nervous origin.

The importance of submerged complexes in our everyday behavior was stated in a lighter vein by Ben Ray Redman as follows:

I have a Freudian complex,
A funny little complex,
That's lurking in the hinterland
Of my subconscious brain;
It's frightfully perplexing,
And really rather vexing;
I half suspect, to tell the truth,
It's driving me insane.

It's not an inhibition,
Nor yet a prohibition,
But be assured it's troublesome
As either one could be.
Indeed it's so annoying
I know it is destroying
The very small intelligence
The gods vouchsafed to me.

Why I'm so much annoyed
Is, before I studied Freud,
I never knew a thing about
These complexes at all:
But since they are in season,
I'll have mine or know the reason,
Though the up-keep on a complex
Is a figure to appall.

REPORT OF A CASE OF LYSOL POISONING*

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I shall first give you the details of the case, together with the treatment carried out, and then what little I have been able to learn concerning the nature and effects of lysol.

Was called about 12 midnight on Jan. 21 and told over the phone that the patient had taken poison. In so many of these cases we have been called to a supposed case of poisoning that I did not treat the matter as of great importance, thinking that my ordinary medicine case would likely be all that I would require, though I thought of going to my office and getting my stomach tube, but did not do so. Mistake No. 1, and a serious one. Arriving at patient's house I found a strong vigorous young man of about 25, who, according to the best statement I could get from the frightened relatives, had swallowed the remainder of about a 4-ounce bottle of lysol, they stating that the bottle had been between $\frac{1}{2}$ and $\frac{3}{4}$ full, giving him at the minimum about 2 ounces lysol, an undoubtedly lethal dose. The patient was apparently delirious, raving about and struggling with anyone who attempted to restrain him. Gave him at once 1/10 grain of apomorphine. Mistake No. 2, as he rapidly passed into an unconscious state, only vomiting a small quantity of fluid, upon which the odor of lysol was plainly distinguishable. He had seemed to have a considerable secretion of mucus, which rapidly increased, and the respiration became very bad, it becoming necessary to hold his jaw forward in order for him to get sufficient oxygen, as otherwise he at once became very cyanotic, and would have died I believe if left to himself. About this time I began to think that I did not know all that there was to be known concerning cases of lysol poisoning, and had the relatives telephone for another physician, asking him to bring along a stomach tube. Dr. Sabine came to my rescue, not only bringing the stomach tube but also about 2 ounces of alcohol, though where in these good Volstead times he ever got it I do not know. Rapidly passing the stomach tube, we washed out the stomach a number of times with a weak solution of bicarbonate of soda, and after getting

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most of the free lysol out of his stomach, poured in the alcohol, washing that out in turn, and finally finishing up with about $\frac{1}{2}$ pint of milk, which was allowed to remain in the stomach. The following day the patient was rational, and seemed fairly comfortable, notwithstanding the fact that the chin which I had noted was burned at my first examination, was now turned brown and looked like an over-cooked beefsteak. The kidneys had not acted. At the evening visit, however, they had acted, and I was told that the urine was black. On my request the patient voided some urine in my presence, and it was not yellow, or brown, but was a jet black, looking considerably like a poor quality of ink. On this day also we had the most profuse flow of mucus secretion from his chest I think I have ever seen in any patient, spitting up about 1 pint in each 6 hours. At the next morning visit the patient had a temperature of 103, and there were numerous streaks of blood in the mucus which he was expectorating still in large quantities. What the cause of this fever was I am unable to say, as it persisted for 3 days, though always declining, and finally ceased, without my being able to determine any cause for it. The black urine persisted for 48 hours, after which it gradually cleared up and assumed a normal appearance. During this period the treatment had been large doses of bismuth subnitrate combined with about an equal amount of Calmined magnesia, together with a small amount of morphin (just enough so that the doctor would not have to get up out of bed at night) and a small amount of antipyretic in the form of acetanilid comp. At no time in this case was there even a suggestion of cardiac failure, and at no time in the case was any stimulant used, aside from the alcohol which was used in the stomach washing, not for its stimulating effect, but for its chemical antidote effect to carbolic acid, and this leads me to another confession and that is that I treated this case and thought of it as one of carbolic acid poisoning, though why I should have done so I cannot clearly explain to myself, except that the odor is slightly similar and the burns inflicted are similar. The patient had a few slight rigors, particularly during the time he was having the fever, but on the whole made an uninterrupted and rapid recovery, being discharged Jan. 29, just 8 days after the dose.

Now for what I have been able to learn of lysol poisoning, and its chemical composition. In the first place, permit me to state that on consulting my library, I found it wonderfully lacking in any treatise on poisoning in any form, and there might be a chance for a book agent to get by with something. So that what little I have learned as to lysol was simply dug out by myself, and that is not much. In reply to a message I sent to the *Journal of the A. M. A.*, I received the following message. (Message on back.) Upon reference to the pharmacopœia I found the composition of liquor cresolis compositus to be as follows: Cresol Gm. 500; linseed oil Gm. 350; potassii hydroxide Gm. 80; aquæ q. s. Gm. 1000. I might add that of course the chemical antidote to carbolic acid is alcohol, and the rapidity of its administration may very well spell the difference between life and death, that my half-formed and very vague idea that lysol was similar in effect to carbolic acid proved correct, and that I would suggest that each one of us should arm himself with a stomach tube before setting forth to a case reported to be one of poisoning.

RURAL SURGERY UNDER DIFFICULTIES.*

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It is not the intention of the author of this paper that it be scientific or technical, but to be entirely practical as applied to surgical practice in rural communities or those without convenient hospital facilities.

A very important matter to take into consideration is that accidents and injuries of various kinds frequently occur when least expected, and when the surgeon is called to attend one he is usually ignorant of the nature of the case until he reaches the scene and examines the patient, as first reports are usually deceptive.

A surgeon, regardless of the supposed nature of a call, should always go prepared as nearly as possible to take care of any kind of injury. If necessary, a temporary hospital should be established at the scene of injury. In rural or isolated places this is absolute if we expect to meet with success. There are many instances when, if an

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operation had been performed at the time of the injury "right on the spot," instead of delaying the matter until the patient could be taken to a hospital, probably requiring several hours' time, a life could have been saved. The case I am going to report is included in the above and since meeting with it, I have taken nothing for granted.

August 12, 1911, during extremely hot weather and near the noon hour, I was called by telephone to attend an injury some twelve miles distant and in an adjoining county to my own. The party who had called stated that there had been a fight, and that one of the parties thereto had received a cut on the face, and it was thought that it might be necessary that he have surgical attention.

I started at once for the scene of battle, driving a double team. (You could not get there any other way except horseback.) I arrived at the scene of trouble between one and two o'clock p. m., and found a young man about twenty-three years of age lying on a cot in a grove near a residence, and the cot surrounded by no less than one hundred people of the community. (I had an audience of four or five hundred before my departure.) A justice of the peace, a lawyer, a constable and minister of the gospel were on the grounds. It was thought at the time that the patient could not possibly live more than a few hours at the most, and the injured party believed the same thing, too, and no doubt honestly. The J. P. and the lawyer were taking an ante-mortem statement from the injured. These proceedings, of course, made me suspicious that the party who had called me was misinformed, or had misrepresented to me the nature of the injury.

The first thing I did was to order the throng back from the cot, as the patient was suffocating from want of fresh air. I saw immediately from his general appearance that he was seriously hurt, and told the legal officials to make haste and get his statement. This being accomplished to the satisfaction of all concerned, I hastened to prepare for the operation.

I will merely give a general outline of the nature of the injuries and treatment, allowing you to draw on your experience with kindred cases for the details, but in order that you may fully realize some of the difficulties that beset me, I will give a brief history of the case.

The patient and two of his enemies met on the

public highway and proceeded to settle a feud of long standing, by a free-for-all fight. (Arbitration in this case would have been better.) The patient attempted to use a revolver, which failed to work properly, while his opponents used knives with more success. They strong-armed and cut and slashed him until he fell in the dusty road. He told them that they had killed him, and they both fled from the scene, leaving him lying on the ground wallowing in the dirt and his own blood. In a few minutes he revived sufficiently to get on his feet. A greater part of his intestines had fallen out, and he caught them up in his dirty clothing and carried them in that manner for about fifty yards, when he again fell in the dust. A party saw him fall and with others went to the rescue and placed him on the cot as stated before. Time, about 10:30 a. m., which was some three hours before my arrival.

Before examining the patient, I had him removed to a residence near-by and laid upon an open porch floor. There was nothing convenient suitable for an operating table, but by placing the patient near the edge of the porch I could stand upon the ground by his side with some degree of comfort. I had no trained assistant, nor could I procure one. Friends rendered great aid in supplying such necessities as hot water, etc. By this time the patient was quite weak from loss of blood, shock and great pain. He was given a hypodermic of morphia sulphate $\frac{1}{4}$ with strychnia sulphate $\frac{1}{60}$ grain, and, as there was no one present capable of administering an anesthetic, the above treatment was repeated every thirty to forty minutes as conditions indicated, until the operation was completed.

Upon attempting to remove the clothing, I discovered that it had become dry and stuck tight and fast to the intestines, which necessitated the use of hot water applications. On removal of the clothing, it was found that a greater part of the intestines were external of the abdomen, lying in one continuous mass, extending from the sternum downward to and including the scrotum, and transversely from side to side covering the whole of the abdomen. On attempting to manipulate them, I discovered that they were thoroughly dry and stuck fast to the body. I again had to make use of hot water applications before they could be separated from the abdomen.

Not until this time had I begun to realize

the true nature of the injury and the apparent seriousness of it. I came near allowing myself to believe that it would be absolutely useless to try to do anything for the patient in the nature of permanent relief. I thought seriously of only trying to make him look well for the coroner, as he appeared to be sinking fast. But that thought was soon banished and I resolved to complete the laparotomy unless death intervened.

The wound in the abdomen through which the intestines protruded was a transverse stab and cut about $3\frac{1}{2}$ inches in length in the lower right quadrant, just slightly below and a little to the left of McBurney's point. The same stroke of the knife that opened the abdomen also entered the ileum, severing it obliquely to the extent of two-thirds, releasing the contents to add further to the filth-covered intestines. I closed up the severed intestine with chromic cat-gut and after about two and one-half hours of persistent scrubbing and cleansing the abdomen and its contents with hot water, phenol, mercuric chloride, absorbent cotton and plain gauze, I replaced the intestines and closed up the wound with silk with the exception of one inch. Through this space, drainage was established by means of an iodoform gauze wick. The abdomen was kept open as long as there was a particle of discharge from the wound, which was twenty-nine days.

He received several other stab wounds in various parts of the body, one in particular which is worthy of mention. It was a stab in the back just below the right scapula, which entered the chest cavity. These all bled profusely, weakening him very much before receiving attention. They were treated in the usual manner and the patient made a good recovery in about fifty-five days. At no time during his recovery did he have a rise of temperature, with the exception of the fifth day, which was of one degree only.

I can only attribute his recovery to the establishment of a complete drainage of the abdomen, which was exceedingly free from the second to the fifteenth day, and also to the fact that the patient appeared to be in the best of physical condition at the time of the injury.

SUMMARY

Let us be mindful of the fact that frequently the life of the injured depends entirely upon the first treatment given, as typical in the case just recited.

When called to attend a supposed simple in-

jury, go prepared for a major operation, should it be necessary. By so doing you will be able many times to save the life of your patient, when neglect in preparation would mean failure.

After taking all precaution, and failing in your efforts, you will have the supreme satisfaction of feeling and believing that you have done your full duty.

TYPES OF SEVERE ANEMIA.*

WITH ESPECIAL REFERENCE TO SECONDARY
HYPOPLASTIC ANEMIA

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The anemias in recent years have been generally classed under some such scheme as the following:

1. Post-Hemorrhagic—acute and chronic.
2. Secondary or Symptomatic.
3. Anemia due to disturbance of hemogenesis:
 - (a) Chlorosis.
 - (b) Aplastic anemia—primary and secondary.
 - (c) Myelophthisic anemia (including anemia associated with leukemia).
4. Anemias due to hemolysis:
 - (a) Toxic Group.
 - (b) Symptomatic Hemolytic Anemia.
 - (c) Ictera-Anemia.
 - (d) Pernicious Anemia.

1. *Hemorrhagic anemia* presents clear cut pictures when it is acute in its development and also in more chronic cases when considerable losses of blood have occasioned rather marked anemia from the beginning. In cases in which small losses of blood have occurred over a long period of time, there is often a picture that is not so clear and it is probable that such cases may at no stage present the marked features of the acute or of the more rapidly developed chronic group. These very slowly developed chronic hemorrhagic anemias from small blood losses are relatively uncommon and will not be further considered at this point. Ordinary post-hemorrhagic anemias are clearly indicated by the more or less pronounced reduction in red cells and the relatively greater reduction in hemoglobin. There is little change except some pallor in the appearance of the red cells, but nucleated red cells (norma-blasts) are frequently found and may be abundant. Leucocytosis is usually present and the polymorphonuclear neutro-

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philes predominate. Repeated large hemorrhages extending over a considerable period of time occasion a form of anemia not dissimilar from that just outlined except that there is a greater reduction in the number of red cells and considerable alteration in their morphology is frequently observed. Variation in the size and shape of the cells is more striking than polychromasia. Erythroblasts are less abundant than in the acute cases and leucocytosis is less marked, except perhaps immediately following one of the recurring hemorrhages.

The hematologic features of post hemorrhagic anemia are clearly attributable to the direct loss of blood and the dilution of the blood mass with tissue fluids and to the subsequent increased hemogenesis stimulated by the loss.

2. *Secondary or symptomatic anemia* occurs after a great variety of diseases including infections, parasitic diseases, malignant tumors and intoxications. The hematologic features in the acute and chronic cases vary somewhat as do these in acute and chronic post hemorrhagic anemias, and there are minor variations in the case of anemias due to different infections, parasites or intoxications. In general, however, we find in the more acute cases a chloro-anemic picture similar to that seen in acute anemia after hemorrhage, but with, as a rule, less tendency to the appearance of nucleated red cells, while leucocytosis is often distinctly more marked. Changes in the morphology of the red cells are slight even when the anemia is quite severe. Exceptions to these statements occur in some cases, for example, in the pronounced anemia of some cases of lead poisoning or other toxemias. In the more chronic symptomatic anemias greater reduction in the number of erythrocytes and relatively less marked reduction of hemoglobin with less leucocytosis are usual while the morphology of the red cells may show pronounced alterations. The high grades of anemia occasionally met with as a result of long continued small hemorrhages closely resemble the more chronic and severe secondary anemias. Considerable variations in size of the red cells and occasional or even abundant macrocytes, marked poikilocytosis and decided polychromasia are found in the severe and more prolonged cases. Erythroblasts are not numerous but an occasional normoblast or megaloblast may be found. The number of leucocytes is distinctly lower than in acute cases. With continuance and, perhaps, increased severity of such cases, there is sometimes a further fall in the number of red cells, occasionally to below 1,000,000, while the hemoglobin may remain nearly stationary or decrease more slowly so that in the end a color index of 1 or 1+ instead of a lowered index is reached. The leucocytes in the meantime may likewise diminish in number to normal or below normal, the neutrophilic polymorphonuclears becoming less abundant, while the lymphocytes are in relative excess. There is a manifest and pro-

nounced difference in the blood picture of such extreme cases as contrasted with ordinary or even somewhat prolonged symptomatic anemias which suggests an added pathogenetic factor.

The development of secondary or symptomatic anemia may with probable correctness be attributed in part to blood destruction and in part to diminished hemogenesis. That there is a large element of hemolysis in the anemia of various infections, especially malaria, pneumococcus and streptococcus infection and in certain toxemias such as lead poisoning or arsenic poisoning, seems fairly clear despite the fact that our methods of determination do not clearly show the features which we are accustomed to think of as evidences of hemolytic anemia. There are, however, reasons for suspecting that failure of hemogenesis is also a factor in the development of the anemia in these cases. So far as the latter factor may be indicated by evidences in the blood of failure of bone marrow activity (reduction of platelets, reduction of skein cells and diminution of polymorphonuclear neutrophils) we have little that is positive. On the other hand, there is a marked disproportion between the degree of anemia attained in many cases and any evidence whatever of hemolysis.

The interpretation of the cases of very severe and it may be very prolonged secondary anemia, in which extreme reductions in the number of red cells, high or normal color index, normal leucocyte count or actual leucopenia and more or less morphologic variation of the erythrocytes are the outstanding features, is uncertain, but as it is particularly this class of cases to which I desire to direct attention, let me reserve the fuller discussion until I have completed in brief outline the description of the other groups of anemic disease.

3. *Anemias due to disturbance of hemogenesis.*

(a) *Chlorosis*, a disease which has been little discussed in recent years, seems clearly dependent upon some defect in blood making. Whether some original structural fault in the mesoblastic (erythropoietic) tissues or an organic or functional disturbance in the sex glands is the fundamental cause remains undetermined. In connection with the possibility of an endocrine basis, one may recall the occasional occurrence of severe anemia in cases of myxedema. One such recent case in my own experience had suggestive resemblances to pernicious anemia and terminated in complete paraplegia due to spinal sclerosis.

The blood picture in chlorosis as originally defined by Duncan consists of marked reduction in the hemoglobin without reduction in the number of the red cells, and later studies emphasized the absence of morphologic changes in the red cells or alterations in the number or kind of leucocytes. While this is the picture of freshly developed cases, considerable alteration takes place in untreated or inadequately treated cases that have become chronic. In these one finds decided diminution in the number of red cells and consequently less pronounced

disproportion in the percentage of hemoglobin and corpuscles. It is clearly inclusion of cases of this advanced type that has somewhat changed the picture of the disease as described by some authors of later date than Duncan (see Van Noorden's article "Chlorosis," Nothnagel's Cyclopaedia, American Edition). That this change occurs in prolonged and uncured chlorosis was noted by various earlier writers and has been clearly shown in a number of my own cases where the earlier (Duncan) picture was followed by the later features. In this late stage the disease is hematologically indistinguishable from many cases of undoubted secondary anemia. To those cases of secondary anemia in which the poverty of hemoglobin is especially marked, it has become customary to give the title chloro-anemia, while in an adjective sense the term chloro-anemia is used for any anemia even tending in this direction. The recognition that secondary anemia may present this type of chloro-anemia and that the underlying cause of a symptomatic anemia may be obscure has led most of us in recent years to classify as secondary anemia cases which may well have been chlorosis and it is notable that hospital statistics contain less and less reference to this disease. Chlorosis, however, is a definitely established condition and should no doubt be more in our thoughts than it has been of late. That it may grow into a form that more strongly suggests secondary anemia than the picture which is usually described and may finally, in exceptional cases, resemble pernicious anemia is quite certain. Some of my case reports of refractory types followed through a series of years indicate this very clearly.

(b) Aplastic anemia may be a primary condition of obscure etiology or may be secondary to definite causes. The former is a disease now quite well recognized in which rapidly increasing anemia occurs without any clear indications of hemolysis but with evident failure of blood making function as is shown by the usual absence of nucleated red cells, and the great reduction in the number of skin cells and platelets, of the total number of leucocytes and of the polymorphonuclear elements in particular. A marked hemorrhagic tendency is found to correspond with the diminished number of platelets.

A secondary form of aplastic anemia results from certain forms of intoxication, very strikingly from benzol poisoning, as was shown in the report of one of my cases in a workman exposed to a "spill" in an aniline dye works. Less conspicuous cases are no doubt fairly common and are likely to increase in frequency with the more extended use of benzol and its derivatives or related poisons in various industries. In this connection I wish to state that a somewhat striking occurrence of cases of severe anemia among chauffeurs and men working about garages has impressed me of late.

The hematological features of these toxic cases may closely resemble those of primary aplastic

anemia though there are as a rule greater alterations in the morphology of the red cells suggesting some associated hemolysis.

(c) Myelophthisic and post-leukemic anemia and that following exposure to radiation. The destruction of the marrow by metastatic tumors or leukemic infiltration is known to produce a type of anemia, sometimes intense and with evidences in the earlier stages of marrow excitation and later of hypoplasia or aplasia of the marrow. Similar results (without the earlier excitation) occur in cases of prolonged radiation, particularly, I believe where the treatments have been directed over the marrow.

In all of these conditions there is essentially a direct destruction of marrow with resulting loss of hemopoietic function. The anemia that results may be extreme but does not present features suggestive of a hemolytic factor in the etiology.

4. *Anemia due to hemolysis.* (a) Toxic group. Marked hemolytic anemia may be caused by various forms of poisoning such as T. N. T., di-nitro benzol, chlorate of potash, acetanilid or the venoms of certain animals. Certain infectious anemias occasionally fall in this group. Such cases are distinguished from ordinary secondary infectious anemias, in which the probability of a hemolytic factor is admitted, though not evident, by the excessive degree of hemolysis and its conspicuousness in the clinical picture.

Rapidly increasing destruction of red cells with pronounced morphologic changes in the circulating erythrocytes and the development of jaundice, enlargement of the spleen and increased output of urobilin or other blood pigments are conspicuous in this group. It is unnecessary to discuss more fully the features observed.

(b) Symptomatic hemolytic anemia may occur in occasional cases of pregnancy, lues, or carcinoma but are too unusual to warrant further discussion.

(c) *Hemolytic ictero-anemia, congenital or acquired* and of varying grades of severity, constitutes a group in which the associated splenic enlargement and jaundice with the increasing anemia and, as a rule, increased fragility of the red cells are conspicuous features. In the earlier stages and especially in the congenital form comparatively moderate changes in the erythrocytes may contrast with the other clinical features. The red cell count may also be little altered from the normal or, at least, may not be reduced below that of moderate anemia, but as the disease advances, marked changes in the morphology of the erythrocytes and profound anemia may develop and at times hemorrhagic phenomena complicate the picture and increase the impoverishment of the blood. In several cases in our series the disease terminated as a grave purpuric condition. The blood picture in advanced stages gives evidence of the hemolytic nature of the disease, marked changes in the red cells, fragmented cells, polychromasia and pigmented cells, while throughout

the disease and before any changes in morphology are discovered excessive urobilin excretion signifies the augmented blood destruction.

(d) *Pernicious Anemia*. All modern writers regard this severe and eventually fatal disease as essentially a hemolytic anemia and give little or no consideration to the older view that faulty hemopoiesis may be a contributing factor. Some designate the disease simply as cryptogenic hemolytic anemia and nearly all agree that the blood destroying agent, whether infectious or toxic, is of unknown source. I shall not delay even to mention the various views held regarding possible origins. The recognition of the disease when pronounced and typical offers no serious difficulties. The extreme reduction in the number of the erythrocytes, their marked alteration in size and shape, the presence of more or less abundant bizarre forms, the occurrence of decided polychromasia of pigmented (granular) red cells and of erythroblasts, especially megaloblasts, and the presence of a large number of erythrocytes of excessive size (megalocytes) gives the blood picture of typical cases a pathognomonic character. Furthermore, the appearance of the patient (yellow or icteric color), the increased excretion of urobilin in the urine and the excess of total urobilin in the feces and urine are significant features. Unfortunately, there are cases of quite advanced stage in which the character of the blood and the clinical conditions are typical and, on the other hand, pronounced hemolytic anemias of other kinds and sometimes secondary anemias may closely resemble pernicious anemia in their hematologic manifestations. Additional confusion is caused by the fact that in its earlier stages and during remissions, the blood picture may be very slightly suggestive of the disease. The recognition of the disease is, therefore, far less simple than is sometimes believed and errors of omission as well as of commission are not infrequent. That we may make as few as possible of the former type of errors, it is necessary to review the data already mentioned, as well as some additional clinical features, to determine, if possible, the limitations of the term pernicious anemia.

Fatal Termination not diagnostic. 1. In early descriptions of the disease emphasis was placed upon its fatal termination and it is clearly evident in the literature that the tendency to a fatal termination is one of the factors in diagnosis that has been given great weight. In practical clinical experience, I believe few of us have failed seeing cases which have been regarded as pernicious anemia because they were instances of severe anemia without any discovered cause and unrelieved by treatment and despite the fact that the clinical and hematologic features as a whole did not warrant such a diagnosis. That this is a common error of those not especially familiar with blood diseases, my experience compels me to believe. Though we may find ourselves unable to differentiate the type

of profound anemia, we should recognize that the evident lethal tendency of the case does not justify the diagnosis of pernicious anemia. It must, of course, be conceded that when the hematologic features suggest the diagnosis inefficacy of all forms of treatment and a fatal ending warrant a positive decision.

2. *Morphologic changes in the red cells*. The combination of all of the recognized abnormalities in the blood picture undoubtedly establishes the diagnosis almost positively, but cases otherwise typical may be wanting in one or more features.

Marked alteration in the character of the red cells may be absent in early stages and may disappear during remissions, and exceptionally may be long delayed in their appearance in cases otherwise quite definite. I recall one in which during a year of increasing anemia never typical in the count and color index, there was a complete absence of morphologic change in the red cells and no erythroblasts were found, yet spinal degeneration occurred and finally caused complete paraplegia, the tongue was characteristic and before death the blood picture was nearly typical. Except in early stages and in remissions such absence of morphologic changes is rare and a diagnosis in their absence is difficult, indeed.

Erythroblasts. Great weight is given to the significance of nucleated cells and it has sometimes been suggested that the absence of such cells or even of the form termed megaloblasts should exclude the diagnosis. A number of years ago a hematologist took me to task for venturing a diagnosis of pernicious anemia in a case in which there were only normoblasts. Such a criticism would hardly be made today and it is generally admitted that blasts of all sorts may be wanting, though usually in these cases repeated examinations will sooner or later reveal their occasional presence. Megaloblasts, when present, and this is doubtless the case in the majority of instances, are especially significant, but they are not diagnostic as we well know they may occur in occasional severe anemias of other sorts.

Megalocytosis. Not the presence of an occasional large form but a definite increase in many, perhaps an average increase in size, is highly significant and rarely met with except in this disease. Its absence does not exclude the diagnosis when other conditions strongly indicate it.

The other morphologic conditions taken separately—anisocytosis, poikilocytosis, polychromasia and granular pigmentation—must not be given undue weight but are features that are usual and important in the whole picture and taken together are significant though not diagnostic.

3. *Evidences of hemolysis*. We rely upon the yellowish color of the patient or the blood plasma, fragmentation and other marked changes in the red cells, urobilinuria and increase of total urobilin in feces and urine, and enlargement of the spleen (which is somewhat proportional to the degree

of hemolysis) as the best evidences of blood destruction. Estimations of the urobilin in the feces and urine or in the duodenal fluid would appear to be the most exact method and are undoubtedly in quantitative determinations the most useful; but we meet with occasionally cases of undoubted pernicious anemia in which these methods fail. Several have occurred in my own recent experience. It may not be assumed from this that pernicious anemia is not necessarily a hemolytic anemia nor even that hemolysis was temporarily absent in these cases. In each of the instances referred to other features left little doubt of the presence of a hemolytic process. Similarly there are cases showing none of the usual yellow discoloration while urobilin tests are positive. The evidence, as a whole, rather than a single criterion must be relied on, and it must also be remembered that a certain yellowness of the skin may be found in non-hemolytic secondary anemias just as it occurs in certain individuals who have suddenly grown faint or in a person suffering from acute nausea.

A diminution of platelets, less marked than in aplastic anemia, a leucocyte count nearly normal or below normal but less decided leukopenia and relative lymphocytosis than in aplastic anemia are other factors in diagnosis.

Diminished fragility of the red corpuscles is commonly present in pernicious anemia and has a certain slight value in distinguishing this condition from severe secondary anemias. It is, of course, in sharp contrast with the increased fragility of ictero-anemia.

Some increase in the percentage of skein cells is usual in the earlier stages and generally throughout the whole disease. In late stages a flagging of hemogenesis may be accompanied by a diminution of these cells.

Among the clinical symptoms that deserve some special consideration are the conditions of the tongue, the analysis of the gastric contents and nervous manifestations.

A peculiar redness of the tongue, sometimes of a raw, at other times of a shining character, with or without thickening (glossitis) and painful sensations in the mouth and especially in the tongue, are frequent early manifestations of pernicious anemia. When combined with an evident, increasing impoverishment of the blood, these symptoms are highly suggestive, especially in patients past middle life, but they are by no means necessarily forerunners of pernicious anemia nor are they adequate to determine that a given anemia, not otherwise suspicious, is pernicious anemia.

In cases of oral sepsis with severe secondary anemia in particular one sometimes sees precisely the same conditions of the tongue as in pernicious anemia.

Absence of free hydrochloric acid with or without the absence of ferments occurs so frequently

that it has a considerable value in diagnosis, particularly as there is far less commonly such an acidity in cases of even the most profound secondary anemias when these are independent of gastric disease.

Much has been said in recent years of the diagnostic significance of nervous symptoms and in particular of spinal cord disease (postero-lateral column disease). While it is quite true that an early development of numbness and tingling or pains in the extremities, particularly in the feet, is highly suggestive, and that in the more developed stages of the anemia loss of the sense of position of the toes or foot (acroataxia) and of vibratory sensation (bone sensation) with changes in the reflexes (knee, ankle, toe) are significant of cord degeneration, it must be remembered that similar cord disease has been repeatedly described in cases of leukemia, has been produced experimentally by interference with circulation and I may add from my own experience that it occurs now and then in profound secondary anemia. Nevertheless, the far greater frequency of occurrence of these symptoms in pernicious anemia gives them a suggestive value in diagnosis that cannot be ignored. In passing, I wish to state that in a few instances I have seen the nervous symptoms pronounced before there was notable anemia and this of uncertain type.

I have thus, perhaps, at somewhat wearisome length, but without great detail, reviewed the outstanding hematologic and symptomatic features of pernicious anemia that we may have it before us for contrast with the conditions found in certain severe and prolonged secondary anemias, infectious, post-hemorrhagic or toxic, to which I referred in an early part of my discussion. I allude to those cases in which with long continuance of the cause of secondary anemia and after what appears as an exhaustion of the reparative hematopoietic function the character of the anemia changes, losing most of the features that ordinarily suggest secondary anemia. Those cases may reach extreme grades of severity and they may terminate fatally, apparently without any added cause other than the exhaustion of severe anemia; and for these reasons are likely to be regarded as pernicious anemias. Even before the fatal issue seems imminent, failure of all forms of treatment to improve the blood picture suggests a diagnosis of pernicious anemia. That there is a condition of exhaustion of the blood making powers in cases of continued anemia seems natural enough and was long ago mentioned by Laache and Ehrlich. The former found that the red cells increased from 1,600,000 to normal in two months in a case of acute post-hemorrhagic anemia, while in a case of anemia from repeated rectal hemorrhages (hemorrhoids) the return to normal from 2,500,000 erythrocytes required eight months after all hemorrhages had ceased. Ehrlich showed experi-

mentally that after repeated bleedings the regeneration was much slower than in cases of equally severe anemia due to a single loss of blood. In confirmation of Laache's observation, I may refer to two cases of my own in which attempts to relieve post-hemorrhagic anemias, after removal of hemorrhoids and cessation of all hemorrhage, failed completely till the anemia was partially corrected by transfusions, after which further impoverishment went on progressively under medical and dietetic treatment.

Profound anemia with red cell counts below 1,000,000 and with a color index of one and one plus may be found in the group of cases under discussion and by reason of its severity naturally suggests pernicious anemia. The differential diagnosis is by no means easy and in some cases, perhaps, impossible. A careful consideration of all of the data obtained by clinical and hematologic study must precede any decision. Off-hand diagnoses are the cause of most mistakes and it is important to remember that the possible discovery of a cause for a severe anemia may lead to successful treatment, whereas, a decision in favor of pernicious anemia will usually be followed by abandonment of any serious efforts.

A study of these cases of profound secondary anemias shows an absence of evidences of hemolysis, excepting that some fragmentation and other morphologic changes in the red cells may be suggestive. The urobilin excretion is subnormal, the color of the skin and plasma of the blood are not suggestive of hemolysis (though a certain yellowness of skin without change in the sclera may be seen in advanced and somewhat rapidly developed cases). On the other hand, pernicious anemia may be suggested by the fact that the number of leucocytes falls with prolongation of the anemia until a normal figure or possibly even a moderate leukopenia is reached while the neutrophile polymorphonuclears diminish progressively and relative lymphocytosis (not as a rule as great as in pernicious anemia and much less than in primary aplastic anemia) follows. Nucleated red cells of all kinds are usually wanting; exceptionally a normoblast or even megaloblast may be found. In most cases the red cells show much less morphologic alteration than that which is common in pernicious anemia, and polychromasia and granular pigmentation are far less conspicuous. True megalocytosis is decidedly exceptional though here and there a large giant red cell may be found. The blood platelets are often definitely reduced, though less decidedly than in pernicious anemia. Skein cells are commonly increased in number in pernicious anemia and are usually reduced in number in the other groups. Intercurrent infections in such cases provoke a reactive neutrophile polymorphonuclear leucocytosis much more frequently than is the case in pernicious anemia; but in the latter disease, I have seen this quite

marked though it is more often wanting or very slightly evident.

Enlargement of the spleen is distinctly more common in pernicious anemia than in the type of severe secondary anemias under consideration, but there are, of course, instances of the latter group (infectious, toxic) in which splenic enlargement may be striking feature.

A consideration of these facts has led me to classify these cases as secondary hypoplastic anemia and I wish to emphasize the importance of recognizing the type because it evidences one of the tendencies of unrelieved chronic anemia and because of its suggestive resemblance to pernicious anemia.

I would not wish to give the impression that such a hypoplastic or asthenic condition of the hematopoietic system and especially the marrow is peculiar to any special form of anemia. I believe that it underlies the development of the condition, much discussed in former years, known as late chlorosis; and it may be the end stage of anemias due to continued slight losses of blood and various toxic anemias, whether hemolytic or otherwise, as well as the prolonged anemias of mild sepsis—focal infections, chronic infective endocarditis, etc. There are also similar changes in the blood picture in chronic leukemia, after x-ray treatments and in cases of continued ictero-anemia. But in all of these except the hypoplastic anemia following obscure secondary anemia some features of the earlier conditions remain and the diagnosis is, therefore, less obscure. When it has developed gradually from a secondary anemia of obscure etiology the end picture may superficially resemble that of pernicious anemia so closely that careful blood studies and clinical investigations alone will enable the clinician to exclude the diagnosis of pernicious anemia. Less frequently primary aplastic is suggested and is to be excluded by a full review of the clinical course of the case and by the absence of the pronounced evidence of failure of bone marrow function characteristic of this disease.

OVER FIVE HUNDRED GALLONS OF FLUID FROM AN OVARIAN TUMOR

John D. Malcolm and G. A. Gibb, *British Medical Journal*, Oct. 22, 1921, state that the cyst from which this fluid came was noticed in 1893, and the abdomen was tapped the first time in the autumn of that year. In 1899, after about six years' tapplings, the late John Langdon tried, and failed, to remove the tumor. On July 20, 1906, John D. Malcolm tried again, with the same result. Almost to the last the condition of the patient was fairly good. She was up and about and ate enormous quantities of food, except just before tapplings, when she suffered from nausea and vomiting. On June 30, 1921, when a tapping was about due, the patient was seized with pain and vomiting, and was tapped without relief. She died on July 6, at the age of 67. There were some 368 tapplings in all, by which 506 gallons of fluid, which would weigh two tons, were removed.

ILLINOIS MEDICAL JOURNAL

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State society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

Send original articles and all communications relating to advertisements to Dr. Charles J. Whalen, Editor, 6221 Kenmore Avenue, Chicago.

Membership correspondence to Dr. W. H. Gilmore, Mt. Vernon, Ill.

Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 927 Lawrence Avenue, Chicago.

Contributors will submit all copy for publication typewritten on standard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

Subscription price of this Journal to persons not members of the Illinois State Medical Society is \$3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. \$3.50 per year for all foreign countries included in the postal union. Canada, \$3.25, single current copies, 35 cents. Back numbers, after three months from date of publication, 60 cents.

MAY, 1922

Editorial

ALUMNI MEETINGS

ATTENTION! RUSH ALUMNI,
ATTENTION!

If you are coming to the State Meeting May 1-18, remember that the Committee on Arrangements has designated Wednesday Evening, May 17, as Alumni evening.

The meeting place is the Congress Hotel where the registration, the reading of scientific papers and the exhibit will be held.

The Alumni Committee has arranged for a Rush Alumni Reunion and for dinner at the Auditorium Hotel, Wednesday evening, May 17 at 6:30 P. M. Show your Rush Spirit—we hope to make this reunion second to none.

Arrangements for your reservation can be made now by writing direct to Rush Medical College, 1748 W. Harrison St.

DR. JOHN RITTER,
Chairman, Alumni Reunion.

ALUMNI ASSOCIATION COLLEGE OF MEDICINE, UNIVERSITY OF ILLINOIS.

The Alumni Association, College of Medicine, University of Illinois, will hold its annual meet-

ing and banquet at the Congress Hotel, May 17, 1922, at 6:30 p. m. This will combine the usual luncheon during the meeting of the Illinois State Medical Society with the annual meeting and dinner usually held during commencement into one big glorious affair, May 17, 1922, at 6:30 p. m., at the Congress hotel. A unique feature of the meeting will be a total absence of speeches. Several classes (1887, '92, '97, '02, '07, '12 and '17) are planning reunions. There will be entertainment in abundance and the ladies are welcome.

JOHN M. KRASA, *Secretary.*

LOYOLA ALUMNI BANQUET

Loyola University Medical Alumni:

Notice is hereby given that the Annual Reunion and Banquet will be held on Wednesday evening, May 17, 1922, at 6.30 P. M. in the Gold Room of the Congress Hotel, at Chicago, Illinois.

Owing to the Illinois State Medical Society Convention at that time, it is imperative that those out of town who contemplate attending the alumni affairs, make early reservations for accommodations.

"First come, best served," is our slogan.

Let it be understood that this notice is given to all graduates of Loyola University School of

Medicine, including Bennett Medical College, Chicago College of Medicine and Surgery, Reliance Medical and Illinois Medical Colleges, and that no further notice shall be deemed necessary.

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL

On Friday, May 17, during the meeting of the State Medical Society the Alumni of Northwestern University Medical School will have a banquet at 6:30 o'clock at the Hamilton Club, Chicago. Alumni attending the State meeting are requested to send in their reservations to Dr. James G. Carr, 2421 South Dearborn Street, Chicago.

THE SECRETARIES' CONFERENCE

The Conference of the Secretaries of the County Medical Societies will be held at a time when it will be convenient for all members as well as Secretaries and other officers to be present.

The program given on another page of the JOURNAL will prove to be interesting to every member of the Society.

The Secretary urges all officers and members who can conveniently do so to be present at this meeting.

Last year more than one hundred were present. It is hoped that a very large number will be present at the Conference this year.

T. D. Doan, Secretary.

CLINICS DURING THE ILLINOIS STATE MEDICAL SOCIETY MEETING.

Clinics will be held at the various hospitals all day Monday, May 15th.

Clinics for Tuesday the 16th and Wednesday the 17th and Thursday the 18th will be for half days only, that is forenoons up to twelve o'clock.

Clinic bulletins will be published every afternoon and same will be posted at the Congress Hotel at 5 o'clock p. m.

Bulletin each day will feature the clinics for the following forenoon.

Bulletin of Monday clinics will be available at the Congress Hotel early Monday morning, May the 15th.

CHICAGO TUBERCULOSIS SANITARIUM CLINIC.

Reserve Wednesday Morning State Society Meeting week for the Clinic at the Chicago Tuberculosis Sanitarium:

Free automobile ride to the Sanitarium.

Free luncheon at the Sanitarium.

All arrangements made by the Chicago Tuberculosis Society.

Send your card to Room 1532, Marshall Field Annex building, 25 East Washington street.

CHICAGO MEDICAL SOCIETY WILL ENTERTAIN OUT OF TOWN PHYSICIANS AT STATE MEDICAL SOCIETY MEETING MAY 16-18

The Chicago Medical Society will be host to the physicians and their wives of the State of Illinois, at the coming State Meeting to be held at the Congress Hotel, May 16, 17, 18, 1922. Plans for the entertainment of the wives and families of out-of-town physicians are being arranged by the Entertainment Committee.

Registration will begin at noon, Monday, May 15, 1922. Our duty as citizens makes it necessary for the medical profession to be militant in the performance of the task of emphasizing to the public the fact that the physicians are the only body of men properly educated to instruct the community both collectively and individually upon matters pertaining to health. The drooping violet days of the profession as an organization are over. Individual interest, in County and State Medical Meetings, on the part of each and every physician will make it possible for the aims of organized medicine to be plainly written upon the statute books of the states and nation. If you expect to think intelligently upon these matters and have a voice in coming legislation, it is necessary that you attend your County and State Meetings.

Mix and talk with other doctors, learn from them as well as teach them. Do not be satisfied to come alone to the May meeting, but see that your neighbor physicians also come. Do not forget to bring your wife. Her interest in your success entitles her to the outing this meeting will provide.

EMMET KEATING,
Chairman, Registration Committee.

ILLINOIS STATE MEDICAL SOCIETY

SEVENTY-SECOND ANNUAL MEETING

*Chicago, Illinois**May 16, 17 and 18, 1922*

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DELEGATES TO A. M. A.

J. W. VanDerslice	Chicago
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ORDER OF PROCEEDINGS

Registration and Exhibit Hall, Elizabethan Room, Congress Hotel.

Monday. Clinics all day.

First Day—Tuesday Morning. Clinics.

First Day—Tuesday Afternoon—

1:30 p. m.—Call to order of the Society in General Session by the President, C. E. Humiston. Gold Room, Congress Hotel.

Report of Committee on Arrangements, Frank R. Morton, Chicago.

2:00 p. m.—Call to order of the Sections for the reading and discussion of papers. Section on Surgery, Gold Room, Congress Hotel.

Section on Medicine, Florentine Room, Congress Hotel.

Section on Public Health and Hygiene, Green Room, Congress Hotel.

5:00 p. m.—Meeting of Committee on Credentials, Congress Hotel.

Credentials of all Delegates must be presented to this Committee.

First Day—Tuesday Evening.

8:00 p. m.—Call to order of House of Delegates by President, C. E. Humiston, Green Room, Congress Hotel.

6:30 p. m.—Banquet of Eye, Ear, Nose and Throat Section, Congress Hotel.

Second Day—Wednesday Morning.

Clinics.

1:30 p. m.—Call to order of the Society in General Session by the First Vice-President, Archie W. Barker, Springfield.

President's Address, Charles E. Humiston, Chicago.

"The Changing Relationship of the Medical Profession to the Public," James F. Rooney, President of the Medical Society of the State of New York.

"Maternal Death Statistics—A Study," Charles E. Mongan, Somerville, Mass.

"Our Medical Economic Problem," Edward H. Ochsner, Chicago.

Open Discussion.

Third Day—Thursday Morning. Clinics.

Third Day—Thursday Afternoon—

1:30 p. m.—Re-convening of the Sections.

4:30 p. m.—Call to order of the Society in General Session by the President, Gold Room, Congress Hotel.

Report of Proceedings of the House of Delegates.

Induction of the President-elect.

OFFICIAL PROGRAM

SECTION ON SURGERY

G. C. Amerson, Chairman, Chicago.

Mather Pfeifferberger, Secretary, Alton.

Gold Room, Congress Hotel

Tuesday, May 16, 1922, 2:00 P. M.

Para-vertebral Anasthesia in Abdominal Surgery, Illustrated—Nelson H. Lowry, Chicago.

Discussion—Hugh MacKechnie and John R. Harger. (24 slides).

Cesarean Section Under Local Anesthesia—Edmund C. Roos, Decatur.

Discussion—Robert E. Farr, Minneapolis; Frederick Dyas, Chicago, and Edwin P. Sloan, Bloomington.

Empyema—James T. Gregory, Chicago.

Choriocarcinoma of the Ovary—John B. Moore, Benton. Some Fractures in and Near Joints and Demonstration of the Author's Fracture Table in the Management of Some of These Conditions—Hugh McKenna, Chicago. Lantern Slide Demonstration.

Discussion—Dr. Kellogg Speed and Dr. E. W. Ryerson.

Surgery of the Lung—Clifford U. Collins, Peoria.

A New Operation for Femoral Hernia—Edmund Andrews, Chicago.

Diagnosis and Treatment of Gastric Ulcer and Pathological Gall Bladder—Don Deal, Springfield.

Nephrolithiasis Complicating Pregnancy—Aime Paul Heineck, Chicago.

Ectopic Pregnancy—Andy Hall, Mt. Vernon.

Injuries to the Knee Joint or Derangements of the Knee Due to Trauma—Maurice A. Bernstein, Chicago.

Discussion—B. F. Launsbury and E. W. Ryerson.

Local Anesthesia in Surgery of the Upper Abdomen—R. E. Farr, Minneapolis, Minn.

A Further Consideration of Morbidity Incident to Umbilical Drag—L. J. Wiggins, East St. Louis.

The Management of Acute Cranial Injury—Harry Jackson, Chicago.

Splitting the Cord in Herniotomies (Indirect Inguinal)—C. B. Ripley, Galesburg.

Radium and Diathermy in the Treatment of Malignant Growths, or Radium in Malignant Glands—C. W. Hanford, Chicago.

SECTION ON MEDICINE

H. A. Chapin, Chairman, Jacksonville.

E. W. Mueller, Secretary, Chicago.

Florentine Room, Congress Hotel

Tuesday, May 16, 1922, 2:00 P. M.

Syphilis of the Lungs—A. Egdaahl, Rockford.

Discussion—Manly Shipley, Rockford.

Case Report of Syphilis of the Esophagus—J. C. Redington, Galesburg.

The Value of Pyleography Before Undertaking Surgical Measures for the Relief of the More Obscure Types of Abdominal Pain—Vincent J. O'Connor, Chicago.

Discussion—Harry Culver, Chicago.

X-Ray Treatment of Thyrotoxicosis—I. S. Trostler, Chicago.

Discussion—Harold Swanberg, Quincy, and H. A. Chapin, Jacksonville.

Six Year's Experience With the Use of Roentgen Ray Treatment of Fibroids and the Menopause—A. G. Patton, Monmouth.

Interpretation and Diagnosis of Gross Lesions Within the Lungs—Robert H. Hayes, Chicago.

Discussion—O. W. McMichael, Chicago, and Clarence Wheaton, Chicago.

The Vitamines—Charles B. Johnson, Champaign.

Hypo-Thyroidism—James H. Hutton, Chicago.

Discussion—Charles L. Mix, Chicago.

Thymus Enlargements—O. E. Barbour, Peoria, and Lowell S. Goin, Peoria.

Discussion—F. S. O'Hara, Springfield.

The Protozoan Debris as the Primary Cause of Malignancy—Helen B. Flynn, Chicago.

Discussion—A. J. Ochsner, D. J. Davis, Bertha VanHousen, Chicago.

The Symptomatology of Chronic Fatigue Intoxication—Edward H. Ochsner, Chicago.

Discussion—C. W. Little, East St. Louis, and Alfred C. Croftan, Chicago.

The Recognition and Management of Different Types of Auricular Fibrillation—W. W. Hamburger, Chicago.

Clinical Observations on Infantile Eczema—Jesse R. Gerstley, Chicago.

Discussion—Clifford G. Grulee, Chicago.

Cerebral Hemorrhage in the Newborn—Surgical Treatment—A. L. Shreffler, Joliet.

The Open Air School as a Factor in Preventive Medicine—Josephine Milligan, Jacksonville.

Discussion—Inas Rice, Aurora.

SECTION ON EYE, EAR, NOSE AND THROAT

A. H. Andrews, Chairman, Chicago.

A. L. Adams, Secretary, Jacksonville.

Florentine Room, Congress Hotel

Wednesday, May 17, 1922, 9:00 A. M.

Glaucoma Surgery—Michael Goldenberg, Chicago.

A Plea for Conservatism in the Treatment of Maxillary Infections—Carroll B. Welton, Peoria.

Benign Tumors of the Larynx—John A. Cavanaugh, Chicago.

The Training of Specialists in Ophthalmology—William H. Wilder, Chicago.

The Relation of the Nose and Throat to Ear Diseases—George E. Shambaugh, Chicago.

Some Relations of the Nose to the Eye and Ear—B. F. Andrews, Chicago.

Bilateral Blood-Staining of the Cornea—Harry S. Gradle, Chicago.

Report of a Case of Paget's Disease Involving the Orbits, Ears and Mouth—George W. Boot, Chicago.

Hydrophthalmos: Report of a Case Treated by the Trephining Operation—H. W. Woodruff, Joliet.

Tuberculin as a Therapeutic Agent in Certain Types of Keratitis—William G. Reeder, Chicago.

Tubercular Ophthalmia with the Tonsil as a Focus of Infection—C. M. Jack, Decatur.

Some Points of Technique in Intra-Nasal Tear-Sac Operation—J. Sheldon Clark, Freeport.

Adenoids in Infants with Report of Cases—George S. Duntley, Bushnell.

Status Lymphaticus—R. J. Tivnen, Chicago.

Iritis—Wesley H. Peck, Chicago.

SECTION ON PUBLIC HEALTH AND HYGIENE

Mary J. Kearsley, Chairman, Chicago.

Charles S. Skaggs, Secretary, East St. Louis.

Green Room, Congress Hotel

Tuesday, May 16, 1922, 2:00 P. M.

The Physician an Important Factor in Public Health Problems in Illinois—C. W. Lillie, East St. Louis.

Public Water Supplies and Public Health in Illinois—Mr. Harry F. Ferguson.

Tuberculosis in Childhood—Clara Jacobson, Chicago.

The Advantages and Disadvantages in Our Modern Method of Treating Syphilis—Edward A. Oliver, Chicago.

Cancer—William M. Harsha, Chicago.

The Management of Infantile Congenital Club-foot—Henry Bascom Thomas, Chicago.

SECRETARIES' CONFERENCE

L. N. Tate, President, Galesburg.

R. O. Hawthorne, Vice-President, Monticello.

T. D. Doan, Secretary, Scottville.

Green Room, Congress Hotel

Thursday, May 18, 1922, 1:30 P. M.

How Can the Society be Improved in Interest?—V. A. McClanahan, Viola; C. S. Ambrose, Waukegan; Jesse Roth, Kankakee.

The Value of the Member, Socially and Scientifically as Viewed by the County Secretary—Ralph Pearis, Bloomington; S. S. Thorpe, Clinton; W. E. Carnahan, Macomb.

How Can the Society be Improved in Attendance?—E. L. Lee, Aurora; H. M. Camp, Monmouth; George Bower, Galesburg.

How Can the Society be Improved in Discussion?—O. P. White, Kewanee; T. D. Doan, Scottville.

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P. Astier Company.

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EXHIBITORS AT THE SEVENTY-SECOND ANNUAL MEETING

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MEDICAL WOMEN'S CLUB OF CHICAGO ENTERTAINS VISITING WOMEN PHYSICIANS

Miss Cyrena Van Gordon, prima donna of the Chicago Opera Association, who will be the soloist at the dinner to be given May 17 by the Chicago Medical Women's Club at the Chicago College Club in honor of the visiting women physicians and guests to the State Medical Association's meeting, is the young American contralto who leaped into stardom last season by a spectacular performance of Brunhilde.

She is a small-town girl, and less than twenty years ago was taking part in church entertainments in the little town of Camden, Ohio. Later she sang in the church choir.

She left Camden to study music in Cincinnati, with the ambition of going on the stage. She studied at the College of Music in the Queen City, and was chosen for a role in a big missionary pageant entitled "Darkness and Light." It was there that Campanini found her and offered her the contralto roles in his Chicago organization.

Miss Van Gordon's great opportunity came last year when Miss Mary Garden, general di-

rector of the company, decided to produce "The Valkyrie" in English.

It was a role that few artists had essayed, among them Gadski, Nordica and Matzenauer. "Her youth is against her," said the critics. She would never last out in this vocal Marathon, they predicted. They attended the performance with misgivings.

The curtain rose on the second act. A golden voice rang out in the famous war-cry. A moment later seasoned operagoers were rising from their seats and crying "Bravo."

The critics confessed themselves amazed. Her youth, instead of being a detriment, had proved her greatest asset. She fitted into the role as if she had been born for it. She was acclaimed not only as the most beautiful Brunhilde the stage had ever known, but one of the most magnificently equipped vocally.

Her rise from a small town choir singer to an opera star of the first rank often has been cited as proof that American artists do not have to adopt foreign names or sing in foreign organizations in order to win recognition here.

Seats have been reserved for the women physicians at the Chicago theatre Tuesday and Friday evening for Frank Bacon in "Lightnin'."

The courtesy of the Chicago Woman's Club is extended to the women physicians for luncheons. The Cordon extends the same courtesies for luncheons and dinners during the session of the State Society.

Members of the Chicago Women's Club serve on the following committees: Registration, Dr. Emma H. Salisbury Peterson; arrangements, Dr. Alice I. Conklin; reception, Dr. Jennie B. Clark; entertainment, Dr. Blanche A. Burgner.

MAKE HOTEL RESERVATIONS EARLY

PATRONIZE THOSE THAT PATRONIZE YOU

Illinois State Medical Society will meet in Chicago, May 16, 17 and 18, 1922.

The headquarters for the meeting will be the Congress Hotel, Michigan Avenue and Congress Street.

All the sessions will be housed under one roof.

The Congress is one of the largest and most popular hotels in the West. It is sufficiently commodious to accommodate all the visiting doctors.

The Congress has made the State Society a very alluring proposition as an inducement to hold the State Convention at this hotel. It is therefore only just and honorable that the members of the State Society reciprocate to the extent of making the Congress Hotel their headquarters while attending the State meeting.

The officers of the State Society respectfully request that alumni meetings, dinners, banquets, luncheons, etc., be held at the Congress as a token of appreciation of the concessions made the Society by the Hotel Congress officials.

We respectfully suggest that members of the State Society and others who contemplate attending the convention in May make reservations early and that the reservations be made directly with the Hotel management.

The local Committee of arrangements is Dr. Frank R. Morton, 25 E. Washington St., Chairman. Dr. Thos. P. Foley, 25 E. Washington St., Secretary.

INSURANCE COMPANY BEATEN BY CHICAGO MEDICAL SOCIETY, IN A TEST OF A PHASE OF THE WORKMAN'S COMPENSATION LAW.

DR. BENJAMIN AUGUSTUS, Appellee
vs.

FRANK C. LEWIN, Appellant

Appeal from Municipal Court of Chicago.

On February 29, 1920, a man was injured in the course of his employment. A physician was called to attend him. After caring for the man a bill was rendered and returned with the customary announcement that charges were in excess of what was usually paid for such service.

The physician sued in the Municipal Court of Chicago. Showing in Court that his bill was based on the fee table of the Chicago Medical Society the "reasonableness" was allowed. The insurance company then appealed the case, claiming under an interpretation of the last paragraph of Section 16 of the Workingmen's Compensation Act as amended July 1, 1919, that the Municipal Court did not have jurisdiction as the Compensation Board "shall have the power to determine the reasonableness and fix the amount of fee or compensation charged by any person for any service performed in connection with this Act,

or for which payment is to be made under this Act."

This matter was brought to the attention of the Contract Practice Committee and they authorized Mr. Robert J. Folonie, attorney for Illinois State Medical Society, to represent the Committee, feeling that the question involved was one of principle in which every physician was interested. At the time the case was appealed no decision had been made in a similar case before any of the higher courts.

Mr. Justice Matchett delivered the opinion of the court, from which the following is quoted:

"The question to be decided is whether it was the intention of the legislature in the enactment of the provisions on which the defendant relies, to take away from the employer and a third person (in this case the physician) their right to contract with each other. Considering the whole act in connection with these provisions, we think it is apparent that such was not the intention of the legislature. The theory on which our Compensation Law is based is that the parties to whom it applies, the employer and his employees, must voluntarily elect to come under its provisions. It is only when they have so elected that the act deprives the courts of their jurisdiction to enforce contractual terms between them. The manner in which they shall come under the act is distinctly provided for, but there is no provision in the act by which physicians may voluntarily come under its provisions. In *Noer v. Jones Lumber Co.* (Wis.), 175 N. W. Rep., P. 784, where a similar question arose under the Wisconsin statute, the Court said:

"The Workingmen's Compensation Act deals exclusively with matters growing out of the relation of employer and employee: the provisions of the act are binding upon employers and employees electing to be bound by them, and upon none others; all except employers and employees are strangers to the act and their usual lawful rights and remedies are unaffected by it."

"To the same effect is *National Car Co. v. Sullivan*, 126 N. E. 494.

"We agree with the conclusions reached in these two cases and the judgment will, therefore, be affirmed." Justices Dever and McSurely concur.

The decision of the Appellate Court of Wisconsin was rendered while the case in Illinois was

pending. Since the Wisconsin decision and before the Illinois decision the Appellate Court of New York has made the same decision.

The Contract Practice Committee feels that the successful conclusion of this case is the most important piece of work the Committee has accomplished.

THOMAS P. FOLEY, M. D., Chairman.

Contract Practice Committee,
Chicago Medical Society.

ONLY ONE NARCOTIC LICENSE REQUIRED

THE POWER OF ORGANIZED MEDICINE

In the last few years (in Chicago) several attempts were made by the Internal Revenue Department to compel Doctors to take out more than one narcotic license for the privilege of prescribing these drugs in the regular course of practice. The matter became acute in this district in the Fall of 1921, many Doctors claiming they were coerced into taking out more than one narcotic license.

This the editor felt was not in conformity with the wording or intent of the Harrison law. Accordingly we brought the matter to the attention of the Chicago Medical Society Council at September meeting and had passed a resolution to the effect that we believe the ruling illegal and that it would not be sustained in court.

We had the matter referred to Mr. Robert J. Folonie, attorney for the Illinois State Medical Society, for an opinion as to the correctness of our contention. He reported he could find nothing in the law that would sustain the department in its attempt to collect more than one license fee. Several letters passed between our attorney and Mr. D. H. Blair, Commissioner of Internal Revenue, at Washington. The Washington authorities held firmly to their original position, namely, that a license is necessary at each place where doctors prescribe narcotics.

Following this line of reasoning to a possible conclusion a physician might ultimately be compelled to have a license for each home he visits providing he finds it necessary to prescribe opiates therein.

Our attorney on the contrary holding that there is nothing in the wording of the law to support the ruling of the Internal Revenue De-

partment, that the intent of the law was purely regulatory and not a revenue measure and that it made no difference how many places of business a Doctor may have he should be compelled only to take out one license for the prescribing of narcotics.

In conformity with our belief that the ruling was illegal the editor at the October meeting of the Chicago Medical Society offered a resolution as follows (which was adopted): That the Society will defend any physician who might see fit to make a test case as to the legality of the ruling of the Internal Revenue Department.

At the November meeting of the council of the Chicago Medical Society the editor again brought up the matter and offered a second resolution (which was adopted) as follows: That while the Chicago Medical Society will defend its members in fighting the ruling of the Internal Revenue Department we feel that the matter is of more than local importance—that it is a national proposition—and that the council of the Chicago Medical Society recommend to the American Medical Association that it take the matter up at once and push it to a successful conclusion. This the American Medical Association agreed to do. As the result of co-operation and teamwork on the part of these two organizations within sixty days Mr. Blair, Commissioner of Internal Revenue right about faced completely, reversing his former position, and held that "Under present regulations a Doctor has only to pay one fee of Three (\$3.00) Dollars for prescribing narcotics. It makes no difference how many places of business he may have. However, in case he keeps drugs on hand and sells them he must pay for each place at which he stores the drugs. This incident shows the power of medical organization when properly directed.

THE ORIGINAL HARRISON NARCOTIC LAW IS BEING PERVERTED BY RULINGS AND REGULATIONS WHICH GIVE THE MEASURE A MEANING NOT INTENDED IN THE ORIGINAL ACT.

"WHAT PHARMACISTS CAN DO"

We reproduce the following from the *Druggists' Circular*, April, 1922, by Dr. Jacob Diner:

"The Hon. Lester D. Volk, in his speech before the House of Representatives on January 13,

1922, called attention to a matter which should interest not only the pharmaceutical profession, but also every citizen of the United States. He has pointed out that the commendable intentions embodied in the Harrison narcotic law are being perverted by rulings and regulations which give the measure a meaning not intended in the original act. It is a well known fact that drug addiction has existed from time immemorial, and that only since the enactment of stringent laws, and more stringent rulings, has it become an actual menace to society. Every man is interested in curbing this abuse, but science tells us that before solving a problem it is necessary to know and understand what that problem is. In his address Mr. Volk asks for just this, namely, a committee to study the problem of drug addiction, justly realizing that the solution of the problem must wait upon a thorough understanding of it, and every thinking man surely must feel that Congress can do no less than appoint such an investigating committee. In the meantime Commissioner Haynes or his successors, if there should be any, should abstain from making rulings which merely interfere with the practice of medicine without ameliorating the condition of drug addiction. It therefore behoves all of us to petition Congress to this effect, and pharmaceutical associations, medical societies and civic organizations should petition Congress to act favorably upon this resolution."

WHY WE SHOULD NOT CO-OPERATE WITH THE SHEPPARD-TOWNER BILL

In the fiscal year ending June 30, 1916, congress appropriated for the expenses of the federal government \$678,677,859. In the current fiscal year the appropriations total \$3,960,364,621, or six times the appropriation of 1916. The internal revenue taxes collected by the federal government in Illinois for 1921 amounted to \$388,924,964.75, or four-tenths of a billion dollars in one year, and a sum nearly five times larger than the total of \$85,233,055.42 appropriated in 1921 for running our entire state government.

Formerly the main source of federal revenue was from the tariff and from liquor and tobacco. The burden of these taxes rested upon the several states substantially in proportion to population and consumption.

Today the main sources of federal revenue are the individual and corporate income taxes and

the inheritance tax. The burden of these rests with peculiar weight upon Illinois and the other highly developed industrial states, and it appears that much of the money collected by the federal government in Illinois is expended upon work in other states. This constitutes a great drain upon the resources of Illinois and adds to the cost of living of all her inhabitants whether they directly pay much or little in taxes.

Let us illustrate the statement that the burden of these taxes falls with special weight on Illinois. While as we have said Illinois turned over to the federal government in 1921 the huge sum of \$388,924,964.75, Alabama, with a population nearly one-half that of Illinois, contributed only \$18,429,531.41, or less than 5 per cent of the amount collected in Illinois, and Mississippi, with a population nearly one-third that of Illinois, turned over only \$8,996,571.95, or approximately 2 per cent of the amount collected in Illinois.

Illinois should therefore consider with special care all projects for federal activities, involving, as they do, the expenditure of large sums of money.

To reduce the problem to its simplest terms, let us suppose that the sole function of the United States was road building, and that \$100,000,000 was annually collected by income taxes, of which \$5,000,000 came from citizens of Illinois, but that only \$2,000,000 was spent on Illinois roads. It is obvious that Illinois loses \$3,000,000 on the transaction, and would be \$3,000,000 better off if it built its own roads with its own money.

We are told if we will appropriate a certain sum the federal government will give us an equal sum, but this federal money is not really a gift. It is a return of perhaps 30 cents on each dollar of additional federal taxes collected from our citizens to meet the total outlay among the several states. By every such transaction we lose and the majority of the states gain.

The second part of the order raises the question of the constitutionality of these practices, and, more specifically, of the Sheppard-Towner Act, a propaganda for the acceptance of which is now before us. This act gives outright to each state a specific sum of \$10,000 in the first year and \$5,000 thereafter, irrespective of population, and supplements this with a further sum

of \$1,000,000 to be apportioned among those states which approximate a like amount \$5,000 to each, and the balance according to population. The expense rests with special burden on Illinois and the other highly developed industrial states. For example, Nevada, with a population of only 77,000, gets the same specific appropriation as Illinois with a population of 6,485,280, and Mississippi, which pays about 2.25 per cent of the internal revenue paid by Illinois but has a population nearly one-third that of Illinois, gets the same specific appropriation as Illinois and in addition gets an appropriation based on population nearly one-third as large as the appropriation based on population apportioned to Illinois. The fact is that nine states, of which Illinois is one, pay most of the bills for the entire enterprise. The great majority of states get more than they contribute, and no wonder they are enthusiastic about this method of legislation.

THE TIME WILL COME WHEN WE SHALL HAVE IN WASHINGTON A BUREAUCRACY KNOWING NO MASTER

The federal government with its ear to the ground has caught the menace of the insidious invasion of bureaucracy into all departments of American life. The medical profession will do well to heed a candid protest against centralization in Washington of everything from spite fences to child bearing.

Representing the department of justice in a meeting of federal, state and city law enforcement officers of the middle west held in Chicago (March, 1922), Attorney General Clegg in an arraignment of "centralization" said:

"The department of justice is staggering under the load imposed by sumptuary and police laws—laws that within all common sense fall within the natural sphere of local governments. Unless there is a halt in this tendency to saddle all responsibilities on the federal government the time will come when we shall have in Washington a bureaucracy knowing no master—and one day the country will be in ruins."

Individual Americans may be so wearied of self-government that they would find respite in pushing the governing power far away from themselves. Unfortunately one of the penalties of a democracy's freedom is its necessarily indi-

vidual responsibility. While the great American pastime may be that sequence of evasions known colloquially as "passing the buck," manifestly the place to pursue it is *not* in the routine tasks of running the government.

The flexibility and independence of state, county, community, city, ward, home and individual government is the foundation of any democracy. Liberty and responsibility are as irrevocably cemented as the Siamese and the Blazek twins. Principles of democratic liberty are discarded when bureaucratic despotism is established by centralization of authority and the sovereign rights of states are usurped by a progressive and malicious surrender of self-governing powers to national authority.

The world war was the precursor of a tremendous influx of destructive bureaucratic legislation; the number of these laws now on the statute book is legion. To enumerate them would be a task, but for purposes of illustration we mention as among those interesting most directly the medical profession—the Harrison law, the Sheppard-Towner Act and the general striving of the laity to dictate through legislation the practice of medicine. For many years unaided we fought this evil. We had been preaching against this very thing for a long time before Uncle Sam woke up to the danger of bureaucracy and paternalism. However, federal assistance in this direction is a valuable ally in combatting evil. The ILLINOIS MEDICAL JOURNAL welcomes the aid of Uncle Sam's legal department in his fight on centralization of power in Washington, or, in other words, bureaucracy and paternalism.

No taxpayer or student of national politics can take exception to the official warning given by Mr. Crim, assistant attorney general, as quoted above. The number of federal employees has increased to such an alarming extent as to justify the prophesy of Senator Stanley that the country will soon be divided into two classes—office holders and citizens who pay the salary of office holders. In spite of the increase in personnel of the bureaus at Washington, the complaint is almost universal that never was the operation of the federal courts slower and more unsatisfactory or the conduct of the innumerable boards and bureaus at Washington more hopelessly entangled with expensive red tape.

THE STATUS QUO IN THE NARCOTIC SITUATION

With federal and state legislatures in constant turmoil over proposals for the control of narcotic drug addiction, with scientific and medical opinion divided in clamant majority and minority groups over the "disease-vs.-habit" issue, with administrative bodies, both professional and lay, including state and municipal health departments, federal bureaus and special commissions, at loggerheads—all over a question which has in it apparently more power to call forth violent emotional reactions than any other scientific subject—he would indeed be a bold man *who would venture any final or dogmatic judgment on this vexed situation. Speaking therapeutically, a prescription of more light and less heat is emphatically indicated.*

The American Public Health Association as a whole has expressed itself definitely in favor of such a policy in adopting the Report of the Committee on Narcotic Drug Addiction presented at the Fiftieth Annual Meeting (JOURNAL, December, 1921, pp. 1066ff). In so doing it has taken a fundamental stand to which all lovers of the truth can rally, *for it should be unthinkable that a moot scientific question should be decided by a professional body without exhaustive and critical investigation.* If sound administrative measures must wait upon such research, it is better that they should wait than that we should not have the research. Practically, both must proceed simultaneously, with the proviso that the one does not outrun the warrant of the other.

The point of view of the Committee was further supported in a resolution sponsored by Dr. Peter H. Bryce, which, for lack of time, was not presented to the Association, but was submitted to the Resolutions Committee and approved by that Committee and the Governing Council:

WHEREAS, present federal legislation and rules and regulations founded thereon are based on views of a group of men who hold that narcotic drug addiction, in the absence of chronic painful or incurable condition, is not a true disease but rather a vicious appetite or morbid desire; and

WHEREAS, there is another group at least equally numerous and of unquestioned integrity and ability who hold that there is an abundance of medical and other scientific evidence pointing to the conclusion that narcotic drug addiction is

in itself a true pathological condition demanding in every instance individual study and care in its handling; and

WHEREAS, legislative acts and other restrictive measures based on either set of views must fail if the opposing views be the correct ones and must also inevitably cause an immense amount of needless suffering and still further extension of illicit traffic; and

WHEREAS, both of these groups, as well as many other groups and individuals, realize the vital importance of finding the proper solution of the problem of narcotic drug addiction; therefore be it

RESOLVED, *that it is the sense of this Association that there should be a complete and impartial investigation of the entire subject of narcotic drug addiction and its control.*

A congressional investigation of the entire narcotic question, including both the medical phases and the operation of the Harrison Law and state laws, is a possibility if H. Res. 258, introduced in January by Representative Lester D. Volk of New York, is favorably acted upon. Though there is usually some political animus in investigations of this nature, exception can scarcely be taken to the main recommendation of the resolution, which calls for a select committee of fifteen, to contain all the physicians in the House, and to have access to all known data on the question.

The Committee on Drug Addictions of the Bureau of Social Hygiene is meanwhile continuing its independent investigation. Out of all these inquiries it would seem that some authentic and constructive findings should come. One word to the wise in all these groups may not be out of place in this JOURNAL. Liaison between all the investigations should most certainly be maintained, the resources of each should be at the disposal of the others, and active co-operation should be encouraged, so far as it is consistent with a policy of "no entanglements" that would hamper the scientific impartiality of the results.—*From the American Journal of Public Health, April, 1922.*

NOTE: We heartily endorse the editorial and resolutions of the American Public Health Association. Like every other honest body of scientific men we agree with them that "*it should be unthinkable that a moot scientific question*

should be decided by a professional body without exhaustive and critical investigation." Also like other honest scientific men, we abhor the equal crime of "*final or dogmatic judgments on this vexed question*" coming from those in official medical organization position.

We believe that the present narcotic drug situation is largely traceable to just the things which this editorial condemns, and that the American Public Health Association has helped us to *make a diagnosis on the real root of this whole present condition of affairs.*

ALL ABOARD FOR ST. LOUIS A. M. A. MEETING.

May 22, will mark the opening date of the next convention of the *American Medical Association* at St. Louis, Missouri.

For the accommodation of the members of the Society, their friends and families who will desire to attend this meeting, the *Wabash Railway* has been selected as the *Official Line* of the *Chicago Medical Society* and will operate for their exclusive accommodation two special trains known as the *Medical Specials*.

One *Medical Special* will leave in the daytime and another at night. The day train will leave Chicago at 12 noon and arrive St. Louis at 7:30 P. M. This train will consist of parlor, dining and observation cars. The night train will leave Chicago at 11:45 P. M. and consist of standard drawing room, compartment, sleeping cars and buffet lounging cars, arriving St. Louis at 7:30 A. M.

All Wabash trains leave Chicago from the Dearborn Station, making regular stops at 47th Street and 63rd Street (Englewood).

The members who will not be able to avail themselves of the *Medical Specials* can take one of the regular trains on the Wabash Railway which leave Chicago at 9:30 A. M., 12:02 noon, 9:20 P. M. and 11:45 P. M. (Last train out of Chicago.)

There will be a rate of fare and one-half for the round trip granted on the identification plan; identification slip to be furnished by Dr. Alexander R. Craig, 535 No. Dearborn, Chicago, Ill. By presenting this identification slip to any Wabash Ticket Agent he will sell you round trip ticket at the above fare.

For further information write or 'phone Dr.

John R. Harger, 25 E. Washington Street, Secretary of the Chicago Medical Society, or Jno. Maloney, A. G. P. A., of the Wabash Railway, 144 So. Clark Street, Chicago, Ill., Telephone Harrison 4500.

TRAINED NURSES AND UNTRAINED INCOMES.

THE UNELASTIC DOLLAR OF THE PATIENT AND THE INFLEXIBLE RULE OF THE NURSE MUST WORK UNESCAPABLE INJUSTICE.

The "nurse question" will not down.

Until "rubber money" shall be coined it begins to look as if the doctor would have to do most of his nursing himself if experienced care is to be given the very sick patient with a very small income.

The American College of Surgeons had a recent spirited discussion of the current "trained nurse situation." Doctors and surgeons and nurses took part in the debate. The public, without which there would be no need for either doctors or nurses, did not have a chance to say a word. A few here may not be amiss.

There is a comparatively small number of very rich people, a comparatively moderate number of well-to-do folk, and a large number of very poor people in this term "the general public." The bulk of the body, as well as of the American nation, is the concourse of self-supporting, fairly well educated people of limited means. To this class \$7 a day is probably an average income. Even where twice that amount of \$90 weekly is the family income this sum does not permit the payment of from \$7 to \$14 daily for nurses' care during periods of sickness. Where the union rule of an eight hour nursing day is adhered to strictly this means often three shifts of nurses to this is servant hire, doctor fees, extra food and other details and in the very midst of the calculations even a Colonel Sellers would cease trying to make both ends meet.

The nurse has much that is right in her contention that she earns every cent she gets and is not paid half enough at that. The registered graduate nurse must have a degree of culture prior to her three year course of training. She must experience the vicissitudes of uncertain em-

ployment and dull business incidental to all professions, and even if she did not, being human, she could not stand it to nurse straight along, day in and day out.

There would appear to be a debatable middle ground that is ripe for cultivation. The old fashioned "practical nurse" given a comparatively brief preliminary training could be brought into moderately paid service at a great advantage to doctor and patient alike. To pay a nurse \$35 a week when that is the sum total of the family income, or even if the family income is \$70 a week; to give the doctor any sort of commensurate fee, and to keep the family going as well as to employ the household help that is necessary if the mother of the family is down—for the trained nurse will not do housework and should not be asked to do so—is to create a system of impossible economics.

It has been estimated that only ten per cent. of the incomes of the country are sufficient to allow for the employment of the highly trained nurse in domestic illness. How about the other ninety per cent.?

During the war it was tried out and found that a preliminary training of six months fitted intelligent women for admirable work. Some of the achievements of war may be turned to good account in peace.

Such a course will bring down vials of wrath from the nursing profession. In some cities they have been accused of snobbery towards their less ambitious or less capable sisterhood. The situation at present cries aloud for a remedy. If the nursing profession is wise it will get out a periscope and take a good look all around at signs and symptoms. A citizenry will not stand for the maintainance of any professional aristocracy at the expense of its personal health. There is room for all. With no disparagement of the highly trained expert nurse of noble deeds and tireless patience and devotion to the sick and suffering let the plea be made for the right to live and toil of a "lower house." Not all are called to sit in the Senate or the House of Lords. Yet representatives and the Commons cater to a clientele as meritorious as those who wear the plug hats and the ermine. It is to be repeated, let the wiseacres among the nursing profession take a closecut inventory of themselves and their people.

DOCTORS, SUNDAY GOLF AND BLUE LAWS

There have been three compulsory Sunday observance measures introduced into Congress this session.

The latest Sunday observance bill was introduced into Congress by Congressman Fitzgerald of Ohio at the instigation of the Pastors' federation at Washington, the Lord's day alliance, the National Reform Association and the Methodist Board of temperance and moral reform. This bill is the long promised Sunday measure put forth by the Sunday law advocates. It is to close up everything tight in the District of Columbia and is to serve as a model Sunday Law for the whole Nation. It forbids all kinds of Sunday work, except works of "necessity and charity," in the first section of the bill, and in the third section it limits even works of necessity and charity to six days of the week and excepts only household service on Sunday. Neither an individual nor a firm can carry on or perform works of necessity or charity on Sunday, unless "he or it" shall forbid their employees doing such work on a succeeding day.

The bill specially closes on Sunday all "places of public assembly or amusement for secular purposes" also "unlawful sports," but does not define what are lawful sports. Naturally and logically "unlawful sports" are already prohibited by law, because they would not be unlawful unless the law made them so, and it does not seem necessary to enact another law to declare them unlawful. If one law does not work another would make things still worse.

No exemptions are made in the bill for those who observe another day than Sunday as a day of worship and rest, and thus the Jews and Seventh Day Adventists and Seventh Day Baptists would be compelled to observe two days each week.

If this bill should become a law in the District of Columbia all unnecessary labor will have to stop on Sunday, and extra help would have to be provided for necessary and charitable work on Sunday. This would mean that a new set of people would have to be selected to release the fire department men, the police department, the clerks in the ticket office of the railway stations, the conductors and brakemen, the engineers and firemen on the railroads, those in the factories,

government offices and apartment houses and private dwellings, the nightwatchmen, the telegraph operators, the bankers, the restaurant employees, the surgeons, physicians and nurses, the druggists and pharmacists, the electricians and wiremen, the dairy employees, the janitors in public and private dwellings, the barbers and boot blacks, the hotel employees and automobile, chauffeurs, the garage men and gasoline salesmen—in fact, the congregation which had only one Pastor whose duties kept him occupied six days each week would be obliged to hire a second Pastor to relieve him on Sundays.

The penalties attached to this Sunday bill for the violations of any of its prohibition range from five to five hundred dollars, with six months in jail on the side.

The trend of the times towards the enactment of Blue Laws in America if not curtailed, will make every one a criminal and will effect materially the social status of the penal institutions of the country. In former times the occupants of federal prisons have been murderers and counterfeiters, etc., men without social standing. The enactment of anti-golf, anti-baseball, anti-cigarette, anti-lovemaking prohibition, anti-narcotic, espionage and other prohibitive laws is already changing the social status of our penal population. We are informed that a certain federal prison at present contains a certain millionaire of social standing who was convicted of having a still in his cellar, that it up to a short time ago contained the greatest social radical in America, a three times presidential candidate, together with many of his followers; that there are many business men of high standing who, like the millionaire, were unfortunate in procuring alcohol.

We can imagine our jails and penitentiaries taking on a highly edified new social status when these institutions become filled with medical men and surgeons incarcerated for playing golf on the Sabbath or for smoking the deadly cigarette.

For a decade or more a bunch of would-be reformers have been bolstering up a campaign for the improvement of conditions in prisons in this country; as a result the environment of these institutions has undergone a revolution. The elite of the outside world come daily in automobiles; luxuries are there in abundance; there

is much social intercourse among the inmates and the elite of the outside world. The inmates are not asked to work, at present there is a definite movement on foot for the establishment of prison golf links on the part of the plutocratic element. No doubt with the influx of new material recruited from the ranks of the medical profession who will be incarcerated for violating the law pertaining to golf there will be added much political influence and money and the improvements in the way of golf links and other desirable outdoor pastimes will be forth coming. These desirable innovations will be more easily installed when the additional influence is added from an enormous federal drag net bringing in its daily toll of cigarette smokers, flirts and blasphemers. Then indeed will our prisons become real social centers enlivened by brilliant talk. The new environment will of course make some of our penal institutions the most desirable country clubs in America.

"Heaven for Climate" said the great Mark Twain, but "Hell for Society." And it seems as though that natural stopping place on the road to the inferno, the calaboose, might become all that Mark Twain claims for Hades itself. The social rounder who now tries to break into society may well be found in the future trying to break into jail.

But to get to the practical side of the blue law problem every lover of religious liberty and of the constitutional rights to worship God in harmony with the dictates of his own conscience should take alarm at these encroachments upon his conscience and personal liberty.

The religious forces behind the latest Sunday blue law bill are planning a big campaign to flood Congress with petitions favoring its passage. The religious liberty association and the anti-blue law league of America are planning to meet the issue in a vigorous opposition campaign. The contest promises to be lively. Blue law legislation of this nature should be turned down with an overwhelming defeat. Human rights and religious liberty are in danger.

Doctors come in contact with every home in the Nation. The medical profession can perform a great function in educating the people. They should become interested at once in opposition to Congressman Fitzgerald's Sunday Blue Law Bill now in Congress.

THE CLOSED HOSPITAL MENACE

THE PATIENT DOES NOT BELONG TO THE HOSPITAL

Dr. M. L. Harris of Chicago at the annual Congress on Medical Education, Licensure, Public Health and Hospitals, March 7, 1922, published in the American Medical Association Journal, April 1, 1922, page 973 in discussing the paper on Fundamental Principles of Standardization of Hospitals said:

Since every physician is in favor of anything that will contribute to the better care and treatment of the sick, no argument is necessary to convince the medical profession of the desirability of improving the efficiency of hospital service. The term "standardization of hospitals" is an unfortunate one, since it does not convey in any sense the ends to be accomplished, namely, better care and treatment of the sick. The best criterion of hospital efficiency is the amount of human suffering relieved by the work done in that institution. The word "efficiency" embodies the idea that the work should be done as expeditiously and as economically as possible. The benefit of a hospital to a community is a relative question, and depends on the particular community and the honesty and ability of the men doing the work. In the elaboration of hospital management, there are many things in the way of clerical, statistical and technical work which can be advantageously done in large, richly endowed hospitals, or by state institutions, which often have more regard for that kind of work than they have for the character of the output. Frequently it seems to be forgotten by those who are attempting to standardize hospitals that there comes a point in the management of the smaller hospitals at which better work may be done than is done in some of the larger ones, when the installation of such elaborate systems costs a great deal more than the benefit returned to the patient. In such cases, they should not be installed from an economic standpoint, for next to the welfare of the patient's physical condition comes economy of management.

Most hospitals are controlled and managed by a board of trustees, and this body is responsible for the policies of the institution. Hospitals are the workshop of physicians; the material worked on is the sick; the output is health. It is very properly assumed that physicians know more about the care of the sick than any other class of individuals; therefore, medical men should be on every board of trustees managing hospitals. I believe that the majority of the members of such boards should be composed of medical men. When medical men dominate the policies of the boards of trustees of hospitals, we shall see fewer humiliating instances of medical men selling their soul and body and independence to an institution for the privilege of

having their names appear as a member of the staff of the institution.

The closed hospital has come to the front as a result of the propaganda of so-called standardization of hospitals. This sounds much like, and is on a par with, the closed shop of the labor unions. Unless a man is a member of the union, he may not work in a union shop or place. The same tendency is seen cropping out in some hospitals. As a result of the propaganda for standardization of hospitals, many boards of trustees, not dominated by medical men, and superintendents of hospitals misguided by false ideas of the real purpose of a hospital, are asking the question of a physician who wishes to take a patient to the particular hospital whether or not he is a member of some organization. If not, permission to have the patient enter the hospital under his care is denied him. Such a short sighted policy must end disastrously, and the remedy lies in the hands of medical men.

The most audacious and pernicious stand is promulgated that the patient belongs to the hospital and not to the physician, and that the hospital alone is it. It seems scarcely possible that a person would have the audacity to give utterance to ideas so destructive of the responsibilities of the profession. It is even more remarkable that the medical profession has not resented the insulting proposition. If such a preposterous idea prevails, the medical profession will soon be reduced to a purely secondary and subordinate position in the care of the sick, where favored ones might, by the grace of the management, be permitted to sit quietly on the steps of the hospital hoping that the superintendent might condescend to call in one of them and give him permission to prescribe for a patient under his watchful eye. That such a scheme would be to the best interest of the patient, it would seem no intelligent person could even dream. But with such ideas in the air, is it not about time that the medical profession assumed a little more control of medical matters?

THROW QUESTIONNAIRES IN WASTE BASKET

Some of our readers may have noticed that some of the life insurance companies, notably the Lincoln Life Insurance Company, makes a practice of sending out questionnaires to all physicians who have attended applicants for insurance, and these questionnaires contain an inquiry concerning the nature of the diseases for which the insurance applicant has been treated, and an opinion as to the effect of such diseases upon the insurance risk. In every instance the giving of this information is classed as a courtesy to the insurance company, but, as usual with insurance companies, no compensation is offered or granted for the time, effort and opinion given, which is purely for the protection of the insurance company. Oftentimes the furnishing of the information requested means looking up old records and furnishing technical advice concerning

a patient who has not even paid his bills for professional attention. Even if the bill for professional services has been paid, there the obligation ends, and the attending physician owes nothing more to patient and he certainly owes nothing to the insurance company which, in reality, is the one that profits and is protected by the information furnished. We suggest that the best way to deal with these questionnaires is to throw them in the wastebasket.

—*Indiana Medical Journal.*

THE ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association is a scientific organization, but is composed of members with more than the average amount of "humanity" in their makeup with social elements too long repressed. These members are weary from bearing the responsibility of many human lives. Instead of having play time they have become public teachers with no recess. The local entertainment committee of the A. M. A. have been busy preparing to show these visitors true St. Louis hospitality and to provide for them such diversions as will be both restful and entertaining.

The golfers will arrive early in order to participate in the Annual Tournament on Monday, May 22.

Tuesday evening the opening meeting will be held in the Odean and arrangements are being made to have the music and addresses transmitted by radio to various parts of the city and to distant cities.

Wednesday evening is given over to banquets such as alumni, fraternal, sectional, etc. On this evening provision is being made to entertain the visiting ladies and those doctors who are not engaged at the alumni and fraternity dinners at one of St. Louis' noted moving picture shows with special musical and other features for the occasion.

On Thursday afternoon the medical department of Washington University is giving a special tea on the grounds of the institution. Thursday evening will be given over entirely to the president's reception and it is hoped that as many as possible of the doctors and their ladies will grace the occasion with their presence.

The committee, after visiting the offices of the Mayor and the Director of Public Welfare and being assured of their co-operation, have decided to reserve until Friday the chief feature of their entertainment by giving a special program for the entire association in the unique open air Municipal Opera which has a comfortable seating capacity of ten thousand. The location of the opera in the heart of Forest Park with its special lighting effect made possible by the natural foliage of the forest can be appreciated only by those who visit it at night. It is the hope of the committee that every visitor at the convention will remain in St. Louis through Friday evening.

The ladies entertainment committee, under the

leadership of Mrs. Willard Bartlett, has arranged to take immediate charge of every lady visitor who may be persuaded to accompany the medical member of the family to the convention. They need have no fear of being left alone while the doctor is attending the scientific meetings, for practically every hour of their time has been arranged for and it is hoped that many more ladies than usual will visit the "City of Homes—the Friendly City."

A special visit to Missouri Botannical Gardens is being arranged and will be an important item in the entertainment program. Among other features to be shown will be an old Italian herb garden. St. Louis is justly proud of its world famous botannical garden.

Take the whole week off, doctor, and spend it in St. Louis. It will be time well spent. You may lose a patient, some may get well during your absence, but your increased vigor when you get back will abundantly make up for any losses. Come to our party for one full week.

Dr. C. E. Burford, 3525 Pine street, is chairman of the entertainment committee.

DRUG ADDICTION INCREASING

According to a statement made by Bird S. Coler, New York's Commissioner of Public Welfare, all the seeming good which was to be derived from the passage of the Volstead act has passed away and that the outlook for increased dependencies of every kind is growing most alarmingly. The Commissioner said that while the alcoholic wards were practically abandoned in the early part of 1919, their activity at present is greater than it was prior to the passage of the Eighteenth Amendment. Drug addicts, he reports, are growing more numerous all the time and more vicious as well. If the Government had been sincere in the effort to enforce prohibition and to release spirituous liquor for medicinal purposes only, it would have inquired from health departments, welfare departments, and medical societies what amount of liquor is necessary for medicinal purposes.

NEW YORK WORKMEN'S COMPENSATION LAW AMENDED

Governor Miller has signed the Knight bill, completely revising the New York State Workmen's Compensation law. One of the most important amendments under the new law is the elimination of the sixty-day limitation for medical treatment of the injured workmen, and a requirement that the employer furnish to his injured employee medical care and treatment for as long a time as the nature of the injury requires. At the same time under the amendment the employer is protected by the fact that every physician must report to the employer within twenty days the facts as to the nature of the injury and treatment of an employee. Definite provision also is made for the payment of compensation for 150 weeks for the loss of hearing. The old law made no such provision. The

list of occupational diseases included in the law has been enlarged by the addition of diseases not heretofore named, and procedure in relation to proving a claim for an occupational disease has been greatly simplified. Failure to insure the compensation of employee is definitely defined to be punishable by a fine of \$500, or by imprisonment for a year, and the procedure for compelling employers to insure is greatly simplified. Another important amendment is that which places upon a contractor the liability for the compensation for an injured employee of any sub-contractor unless the main contractor sees to it that the sub-contractor carries compensation insurance. A number of other changes have been made which greatly simplify the operation of the law and which insure against wastefulness and extravagance in its administration.

SUPREME COURT OF OHIO CHIROPRACTIC DECISION

FAIR PLAY TO THE PUBLIC REQUIRES ADEQUATE EDUCATION OF CHIROPRACTORS

Organized obstruction to law enforcement, on the part of the unlicensed chiropractors of Ohio, has been condemned emphatically by the Supreme Court of the United States, which on March 27 refused to review the decision of the Supreme Court of Ohio in the now famous injunction suit instituted two years ago by those unlicensed practitioners against the State Medical Board. After going through all the courts in Ohio and after the highest tribunal in the state had upheld the constitutionality of the Ohio Medical Practice Laws, as well as approved the State Medical Board in its rules, regulations and procedure, the action of the United States Supreme Court constitutes a well merited rebuke to those who defy law enforcement and who, without any certificate of qualifications, attempt to treat the sick.

It is significant that the highest court in the land has thus disposed of the many contentions and claims of the chiropractors as to the constitutionality of the Ohio statutes relating to the practice of medicine and surgery in Ohio and the limited branches, including chiropractic. It has likewise effectively disposed of the claims and assertions of the chiropractors that the regulations of the State Medical Board pertaining to that limited branch were illegal. That the decision of the United States Supreme Court squarely discountenances and rejects the chiropractic claims is evidenced by that decision itself. The Court of Appeals, and the Supreme Court of Ohio sustained the constitutionality of the law and the validity of the Board's regulations. From these the chiropractors appealed to the Supreme Court of the United States and made their attack on the validity of such laws and regulations.

One of the defenses offered by the Attorney General for the State Medical Board and its secretary, Dr. H. M. Platter, was that such constitutional

questions upon which the chiropractices based their claims was without merit and had already and repeatedly been held by that high court to be without merit and that such questions were frivolous and made for delay only. To sustain such a defense the United States Supreme Court must be fully satisfied of the frivolity or unsoundness of such claims before it will summarily dismiss an appeal to it. But this is precisely what that court concluded, as its dismissal of the case is based primarily on the frivolity of the questions presented. The per curiam opinion sets forth that the plaintiffs' (chiropractors) case is dismissed first, on the authority of *Farrel vs. O'Brien*, 199 U. S., p. 89-100. This quotation from this opinion shows the reason for the dismissal of the chiropractic case:

"It is settled that the mere averment of a constitutional question is not sufficient, where the question sought to be presented is so wanting in merit as to cause it to be frivolous or without any support whatever in reason."

Thus it is clear that any contention by the chiropractors that the case was not heard on the merits in the federal court are without any foundation.

Repeatedly proving that their efforts in the courts are purely for "delay" and to obstruct the enforcement of law, another suit was filed by the chiropractors in Cincinnati on April 6 in the Common Pleas Court and a temporary injunction issued by Judge Caldwell. In the light of the recent court decisions it is at least reasonable to expect that the court will soon dissolve the latest injunction when it learns that all questions have already been adjudicated.

It will be remembered that the Common Pleas Court of Cuyahoga County in the spring of 1920 granted the temporary injunction application of the chiropractors. This decision with pertinent comments appeared in the April, 1920, issue of *The Journal*, page 227 and 271. In a forceful opinion the Court of Appeals on November 12, 1920, reversed the lower court and upheld the laws in their entirety, page 25, December, 1920, *Journal*. In an opinion concurred in by all members of the Supreme Court of Ohio on April 26, 1921, the decision of the Court of Appeals was reaffirmed (June, 1921, *Journal*, pages 367 and 425), but still for the purpose of delay and to prevent the enforcement of the Ohio practice laws which had by this time been so completely affirmed, the chiropractors carried the case to the United States Supreme Court (August, 1921, *Journal*, page 530).

The Attorney General of Ohio, John G. Price, deserves commendation for his effective efforts in seeing that the laws involved were properly construed and in representing the State Medical Board on the issue through the various courts. A distinct tribute is also due to Mr. Ray Martin, special counsel in the Attorney General's department, who under the direction of his chief submitted exhaustive briefs in both the Supreme Courts of Ohio and

the United States and who argued the case for the state on both appeals.

There are said to be approximately 400 unlicensed chiropractors in Ohio, who instead of attempting to comply with the statutory provisions and court decisions, have declared through their leaders that they will "rot in jail" rather than comply with the law. At a meeting which they held in Columbus early in April their spokesmen are quoted as saying that "the fight has just begun" and that the decision of the Supreme Court will only modify their next method of attack. They have been attempting to pledge prospective legislators and state officials to a bill for a separate chiropractic licensing board, similar to the measures introduced in recent sessions of the legislature. They say that the State Medical Board is no more qualified to examine chiropractors than a board of preachers would be. They fail to explain that the only examination which the State Medical Board gives to such applicants for licensure are in the fundamental branches such as anatomy and diagnosis, and that they are entitled to be examined in their special method of practice by a committee of chiropractors appointed by the board on recommendation of their state chiropractic organization.

In several instances it has been found that the chiropractors have already organized to further the candidacies of prospective legislators who will support their bill. In several cases it appears that where their own members or adherents announce that they will run for the legislature, such candidates, when they find they have little or no chance of nomination and election, will promise to the stronger candidates that they will withdraw in return for a pledge of support to their bill.

It would be a sad day in Ohio if after years of litigation during which the uniform and unified system of examination and licensure in Ohio has been upheld and approved, the complete system intended for the protection of the public against unlicensed and unqualified charlatans were to be destroyed through legislative action, based on false pretense and misrepresentation.

Definite "specific prophylaxis" against such poison in the body politic is evidently indicated, and in the meantime it is to be hoped that the laws will be enforced.

If the public is genuinely concerned about the protection and preservation of its health it must eventually demand of its law-making representatives that statutes be enacted which will require certain definite minimum standards for all who treat the sick in any manner whatever. These requirements might properly be set at two years' work in an approved college of arts and science followed by a four year course in a standardized scientific school.

It is a hopeful indication that the most clear-thinking lay writers now realize that a thorough education in the fundamentals is essential in order

that the public be protected from mercenary motives as well as from ignorance. They see through the preposterous contention of the chiropractors who claim that "diagnosis" is unnecessary.

This thought is forcefully stated in an editorial in a recent issue of the *New York World*, which says in part:

"Fair play to the public would require adequate education of chiropractors—for example, a regular medical course plus specialized post-graduate work expected of a specialist in other fields of medicine.

"In such a course many would-be chiropractors would come to the conclusion that manipulation of vertebrae is not a cure-all, whatever its possibilities.

"Fair play to the public demands that chiropractic processes should be used only by men who know thoroughly what they are doing and why. Both common sense and science deny that all ills are traceable to the spine.

"Fair play to the public demands a strict curb on a great mass of quackery masquerading under the name of chiropractic. Fair play to the public would send a substantial percentage of chiropractors either to school or to jail.

"Adequate education might develop some competent healers of a limited group of diseases from the crowd of incompetent meddlers. But, given education, it is probable most of them would cease to be chiropractors."—Ohio S. M. J., May, 1922.

FADS IN MEDICINE

The *American Journal of Surgery* remarks that as in many other human affairs—dress, ornamentation, sports, social functions—there have always been fads, so, too, in the practice of medicine, as well as in the development of cults outside its pale, there have always been, and probably there always will be fads. In earlier days these were based upon pure dogmata or upon empiricism. Today they are rather the too enthusiastic, uncritical application of scientific—or, sometimes, pseudo-scientific—determinations. It is quite unnecessary to relate any of the many therapeutic fads in medicine or surgery that in days past, and some of them not remotely past, have flourished for a time and then sunk into deserved neglect. It might, however, serve a useful purpose briefly to consider some of the fads that prevail today in medical practice. They are not by any means pure fallacies. Rather, they are, it must be admitted, the serious and usually sincere efforts to correct human ills by an application of certain truths—or half-truths—with more enthusiasm than judgment, without due scientific critique; indeed often without common sense.

Psychoanalysis is a fad that, unfortunately, is not confined to medical practice or even to psychology. It has become also the matinee indulgence of irresponsible flappers, neurotic women and misbalanced men. The Freudian doctrine explains many morbid mental states—ranging from unhappiness to the

borderland of insanity—as resulting from subconscious repressions, which, in turn, arise from sexual traumata; it asserts that these repressions dominate the individual's emotions in his waking hours and are represented, symbolically, in his dreams: and its therapeutic application—psychoanalysis, consists in inquisitorial seances to discover these repressions and "bring them to the surface." But, unfortunately, the mere discovery of these repressions seldom itself effects their cure, which, in fact, these long, intimate, often daily seances are apt to make all the more difficult. Indeed, many of the practitioners of psychoanalysis appear to relish, rather the wallowing with their patients in these "sexual traumata," "symbolisms" and "repressions," than the common-sense efforts to cure them. All too often the female patient discovers—through the interpretation of the psychoanalyst—that she has developed "affection" for him and has lost the love she fancied that she bore her own husband. This is a common experience which the psychoanalyst lays, not as a fault to these intimate "analyses," but to the patient's unfortunate earlier sexual traumata and to mismating!

By the interpretation of fancied dream symbols, by the magnification and perversion of petty incidents, more than one patient has been persuaded of sexual incompatibility with his or her spouse, and more than once neurotic longings, or marital dissatisfactions that might well have been composed, have been made, by psychoanalysis, to terminate in lasting unhappiness or in the divorce court!

Granting the elements of truth in Freud's psychology and granting that some skillful psychoanalysts, by discovering the repressed state, the disturbing sexual or other influence, have sometimes guided their patients to a cure, nevertheless it ought to be recognized that, in the hands of some, psychoanalysis is capable of much evil, that many of the patients who submit to it are distinctly harmed. By the frequent discussion of sexual feelings and practices and by the establishment of morbid introspection and analyses, their last state is made worse than their first. For them—often young, unmarried women—better results might be accomplished through simple common sense or even through Christian Science. Indeed, these are the loosely pivoted individuals who fly from psychoanalysis to Christian Science, or vice-versa, and then to New Thought, and then to some other ism or cult, always seeking to fasten to something that will explain to themselves their own impulses and emotions, reaching out to stronger personalities for such regulation of their conduct and such interpretation of their desires, as well-balanced individuals can order and explain for themselves.

All physicians practice "a certain amount of Christian Science" for those who need it, and every physician and surgeon does, or should, practice "a certain amount of psychoanalysis" to determine, for example, when abdominal symptoms are of psychic

origin, to learn what purely mental distress, repressed or otherwise, is mimicking somatic symptoms and by this "certain amount of psychoanalysis" he may, with kindly common sense, even guide his patient to a happier frame of mind. But this is a long jump from the "sexual trauma," "Oedipus complex," "libido," "repression," "symbolism," "sublimation" and all the rest of the abracadabra of the Freudian psycho-therapy in which today so many girls and young women are absorbed.

BISMUTH IN THE TREATMENT OF SYPHILIS

Several salts of bismuth have been essayed, but it has been found that tartro-bismuthate of sodium and potassium is at the same time the least toxic and the most active. It is white, insoluble powder, to be used only as intramuscular injections suspended in an oily vehicle. It must never be given subcutaneously or intravenously. The ampoule containing the bismuth in oil must be shaken vigorously for some time in order to obtain a complete suspension of the salt. It is then quickly drawn in the syringe, the needle having been previously planted in the muscular mass of the buttock. The needle should be of large caliber and at least two and a half inches long. As the drug is not tolerated intravenously, one should be sure that the needle has not entered a vein before injecting. The injection is given slowly. The immediate reaction is trifling. The injections are at first given every second day in the dose of 20 centigrams, or every third day in the dose of 30 centigrams. Afterward they are given every fourth, fifth or sixth day, or less frequently should stomatitis or a blue line on the gums develop. The total amount of the salt given in a series of injections should be from 2 to 2.5 grams in the space of three weeks to one month. In these doses the activity of the drug is unquestionable and rapid. Fournier and Guénot, who have had the largest and longest experience, found that the treponema disappeared in the chancre after the first injection, but more frequently after the second. The primary lesion heals in from six to twenty days, according to its size. The treponema also disappears from the lymphnodes.

The action of the bismuth salt on the secondary manifestations is likewise very powerful. The treponema rapidly disappears from the lesions and the headache, osteocopic pain, etc., subside in patients who resist the action of mercury or the arsenical salts. Bismuth acts favorably in the tertiary period, and in one case of lingual leucoplasia the lesion notably decreased, although it did not disappear entirely.

Fournier and Guénot have observed no general reaction and only a very tolerable local pain following the injections; stomatitis is less serious than that caused by mercury. On the other hand, Emery and Morin, who have also had considerable experience with the drug, are rather reserved as

to the local and general tolerance, as well as the therapeutic activity, particularly when compared with the arsenic preparations. All observers have noted local pain occurring soon after the injection, and this attains its maximum on the following day. It is never insignificant and may be very severe. Stomatitis is also met with. It is frequent and develops after the blue line on the gums has appeared, which is a warning that saturation of the organism has taken place. But it may develop without any prodromes. It is to be treated by the local application of a 1 per cent solution of methylene blue and one of the arsenical preparations in powder dusted on. General complications are less common. In one case gastrointestinal disturbances developed with mild jaundice and a stomatitis, with a temperature of 101.2° F.

All things considered, bismuth is distinctly and often rapidly active and specific. However, Emery and Morin believe that, in the secondary and tertiary phases of syphilis, its action on Wassermann is less rapid and decisive than that of arsenic. They also believe that bismuth is more potent than mercury, even when the most active salts of the latter drug are used, such as calomel, or the cyanide given intravenously. Its usefulness is evident in patients who resist the action of the arsenical compounds or the salts of mercury. Such is the consensus of opinion today; perhaps tomorrow improvements will be made in the bismuth salt that will change our ideas in respect to the drug. —Medical Record, April, 1922. Letter from Geneva, Switzerland.

THE CLOSED HOSPITAL MENACE

The term "closed hospital" has been coined to describe the undemocratic institution which excludes all but a chosen few from within the sacred circle constituted by the staff. It rather happily hits off this type of institution, and is, of course, obviously borrowed from the nomenclature of labor.

But the point which we wish to make is this: we are as certain as we well can be that there is not a member of any of these sacred circles who would endorse the closed shop in the world of industry.

We don't believe in an oligarchy of labor ourselves, but as between the closed hospital and the closed shop we think that the former outclasses the latter on the score of oligarchy by a considerable margin.

Can anyone think of a reason why the closed hospital should not be abolished? Is there any argument against the closed shop that would not lie against the closed hospital?

What could these privileged brethren of ours, who do not believe in the closed shop, say in defense of their "dog-in-the-manger" attitude? Nothing that we can think of, which doubtless explains their impressive silence on the subject. They just sit tight. And they know that for the present at least they need no lightning rods.

What pikers, after all, are they who man the

closed shop. Pikers and mere children!—Medical Times, March, 1922.

EXPERT WITNESSES ENTITLED TO ONLY STATUTORY FEE.

The supreme court of Nebraska in the case of (*Ulaski v. Morris & Co. (Neb.)*, 184 N. W. R. 946) holds that it was error in this case, under the workmen's compensation act, for the trial court to allow the plaintiff \$50 for expert witness fees charged as costs. The court says that there is no provision in the law for the payment of expert witness fees. The expert witnesses are, therefore, allowed the usual and lawful witness fee, and no more. Wherefore, it is ordered that the court disallow the expert witness fees in the amount of \$50, and that the expert witness recover only the usual lawful witness fees. One testifying as an expert on a subject requiring special knowledge and skill, in the absence of a special contract, is entitled only to the statutory fee.

SPECIAL RATES TO THE ST. LOUIS SESSION.

Special rate round-trip tickets to the St. Louis session of the Association have been authorized by the various passenger associations. These rates are available to all members and Fellows of the American Medical Association who present the usual identification certificate, which may be secured by writing to the Association Headquarters and accompanying the request with a self-addressed, stamped envelope. This concession to those attending the convention should stimulate a full attendance. It is advisable for those who contemplate the trip to write promptly for the necessary certificate.

CHRISTIAN SCIENCE ON THE TOBOGGAN

According to the February 15 issue of the *Western Christian Advocate*, Christian Science quarrels are disrupting the erstwhile pacific society. The net earnings of the publishing company have fallen from a profit of \$500,000 a year to a loss of \$20,000 a month. The *Christian Science Monitor* has lost 80 per cent. of its circulation. Mrs. Eddy is no longer here to compel obedience, and so the autocratic organization breaks up.—*Indiana Med. Jour.*

RESOLUTIONS CONDEMNING MATERNITY LEGISLATION.

The following resolutions were unanimously passed at the last meeting of the Middlesex (Mass.) East District Medical Society:

Whereas, So-called maternity legislation is pending before the next session of the Massachusetts Legislature, and

Whereas, Much of the present consideration of maternity legislation has been due to the persistently widespread statements that maternal mortality has nearly doubled since 1901, and that, there-

fore, the practice of obstetrics is in an intolerable condition, and

Whereas, These statements have even been promulgated and fostered by medical journals, departments of public health, etc., and

Whereas, Such Vital Statistics, although steadily improving in their accuracy, are still wholly unreliable for comparisons, and

Whereas, The Massachusetts Department of Public Health, although still reiterating that maternal mortality is increasing, is unable to furnish causes for such increase except "ignorance," "poverty" and "some unfavorable factor" apparently unknown, and

Whereas, We, the Middlesex East District Medical Society, know of no cause for an increase in maternal mortality, but from our own knowledge do know that there has been marked improvement in the care given mothers and babes during the past twenty years.

Therefore, Be It Resolved, That we earnestly and respectfully urge that the Massachusetts Senate and House of Representatives and the Governor of this Commonwealth consider with the greatest caution all proposed maternity legislation based upon the above-mentioned statistics.

A. E. SMALL, Secretary,

Middlesex (Mass.) East District Medical Society.
February 1, 1922. B. M. & S. J.

VOMITING OF PREGNANCY

In a rather elaborate paper, F. W. Lynch, San Francisco (*Journal A. M. A.*, Aug. 16, 1919), considers the severe vomiting of pregnancy, which, as Mathews Duncan has pointed out, must be distinguished from mere vomiting in pregnancy or the ordinary morning sickness. It is difficult to estimate the frequency of either of these. Both seem to be more frequent in America, France, England and Russia than in Germany; but Lynch rather discredits the truth of the observation. Little is known of the etiology of the condition, and the pathologic picture varies within wide limits, but the liver, he says, is the seat of the most marked degenerative changes. Lynch reviews some of the more important literature of the subject, more especially the work of Williams and Folin, in this country. His own observations, made soon after those of Williams, have convinced him of the general truth that the more serious vomitings are characterized by an increase of urinary ammonia; but because of the many factors influencing the coefficient, it is better to state the ammonia nitrogen in terms of absolute amount, since without this control the ammonia coefficient may occasionally be misleading. He gives a chart that shows how the ammonia coefficient occasionally fails to show the true facts. He has, personally, never seen a patient apparently clinically in danger of life with normal urinary ammonia. He has had a study of the normal acidity of the blood in pregnancy made by his assistant. The amount of acidity is not exceeded in the vomiting cases. The

simpler nausea and vomiting in earlier pregnancy largely correspond to the clinical picture of the so-called gastric neuroses of the acidity type, but the subacidity type is not uncommon, and is often seen in the most troublesome cases. The treatment demands rigid attention to details, and Lynch says he cannot urge too strongly a careful study of the gastric secretion and titration of all vomitus. Any condition mentioned in the textbook as a causal factor must be carefully attended to. Attention must be given to diet, excretions, etc. Lynch goes into some of these essentials with considerable minuteness. What constitutes a safe limit of urinary ammonia cannot be said. It seems rational to treat the acidosis rather than the actual vomiting when the ammonia runs very high, and to induce abortion in the presence of unfavorable symptoms. Hospital interns should be taught the method of ammonia determination. The method of abortion is important, and Lynch cautions strictly against the use of chloroform and declares ether to be objectionable. Local anesthesia suffices for nearly all necessary procedures, and it may be augmented by nitrous oxid-oxygen, in analgesic doses only, keeping the patient in the twilight stage. Everything possible should be done to avoid catheterization. As long as the medical profession and laity alike expect vomiting in pregnant women, we must expect to give treatment in serious cases.

THE CAUSE OF STAMMERING

A recent report on a survey of children in London afflicted with stammering has been made, showing that of a total number of disabilities there were 914,682 boys and only 232 girls. Frights of various kinds and night terrors were associated with many of these. Poor chest development seemed to enter as a large factor in many cases. For those who have believed that left-handedness often accompanies stammering, it may be cited that this condition was found in only thirteen cases. The report showed that in a total number of 275 cases treated in 1920 with a view to the development of the chest, 106 were cured of stammering, 61 left before cured, and 108 were still in attendance at the end of the year.

STERILIZATION LAW HELD ILLEGAL

The Social Hygiene Bulletin for October is authority for the following: The chief physician of the Indiana Reformatory and two chosen physicians had been enjoined from performing vasectomy on an inmate. On their appeal, the Indiana Supreme Court held that the law under which they proposed to act was invalid as denying the due process of law. It was said by the court that the law gave the inmate no opportunity to crossexamine the experts who ordered the operation, to controvert their opinion, or to establish that he was not included within the class designated as confirmed criminals, idiots, rapists, and imbeciles, whose mental and physical condition would make procreation in-

advisable. The objections that the operation was a cruel and unusual punishment, and that under the law pains and penalties might be fixed not by regularly elected judges, but by administrative boards, are not mentioned in the decision, although the second has great weight. The court based its conclusions on the sure ground of the Fourteenth Amendment that safe haven for all causes to which the usual ports are closed. The court chose wisely. The phrase "cruel and unusual punishments" occurs in an Amendment to the Constitution which refers to Congress and not to the States, while the Fourteenth Amendment lays down definite restrictions in certain matters upon the States.

FAULTS IN THE ENGLISH PANEL SYSTEM

The following is taken from the *London Times*, September 5, 1921:

There has been much criticism of the medical treatment received by the public in return for large payments in bulk, and a feeling is still abroad that many practitioners make an unfair distinction between panel and private patients. This is the sort of charge that it is very difficult for the medical profession to meet, because it is always made in such vague terms. There is a regular routine under the Act for taking official notice of irregularities committed by panel doctors, and the inquiries held for this purpose show two things—first, that having regard to the number of the insured, the well-founded complaints are extraordinarily few, and, secondly, that when the offence is brought home to the practitioner he cannot expect any undue leniency.

No doubt the size of certain panels has been in itself an abuse. Panel practice was largely introduced to do away with the over-crowding, delays, and perfunctory treatment which, as the concomitants of hospital abuse, occurred in the out-patient departments of the big charities. That an analogous condition should be reproduced in private surgeries was a serious fault in the working of the Act. The mischief here is already abating, but we may have to wait some time before the medical practice of the country is organized in accordance with the ideals of medical leaders. These ideals were not before those who planned the National Insurance Act, for they unluckily took little medical advice; but the right principles have since been made clear by the Reports of the Consultative Committees associated with the Ministry of Health, and a pattern along which to work for proper organization of medical service has now been laid down.

When adequate surgery and waitingroom accommodation is provided for panel patients at convenient centers, and when such centers are grouped round larger centers, whence consultative and special advice can be obtained, and where hospital treatment in suitable cases may follow, the much-criticized panel practice will be found to be the domestic medicine of the country. But many things combine to make the

waiting for this desirable event tedious and even painful.

NOTE: The "Helped Man" always wants more help, no matter what the quality of the help may be, medical or other.

WHY WE SHOULD DISARM

PEACE TIME TAXES TO EXCEED THOSE OF THE WAR PERIOD

The disarmament congress is the expression of the great war-weariness that has seized the world after an expenditure of \$186,000,000,000 in the great war and the toll of 19,658,000 lives to the insatiable Moloch of battle. Our national debt has risen from \$1,028,000,000 in 1913 to \$24,974,000,000 in 1920; that of Great Britain from \$3,485,000,000 to \$39,314,000,000 and that of France from \$6,346,000,000 to \$46,025,000,000. Such are some of the statistics credited as sufficiently exact to convey an idea of what a single war has meant to the world. The situation which has since then developed in the financial condition of the conquering nations is made clear by the following tabulation of Governmental expenditures per family of five before the war and after, as taken from the New York *American*, showing how the average expenditure per family has risen from approximately \$82 to almost \$510, as the burden which the people must carry:

	Total expendi- tures.	Debt expendi- tures.	Military expendi- tures.	All other expendi- tures.
Before war—				
United States.	\$33.00	\$1.15	\$23.10	\$8.75
Great Britain .	102.00	12.90	40.80	48.30
France	122.80	31.75	44.20	46.85
Italy	70.70	14.05	14.15	42.50
Average	\$82.125	\$14.96	\$30.56	\$36.60
After war—				
United States.	\$214.80	\$43.25	\$45.10	\$117.45
Great Britain .	548.90	182.25	109.55	257.10
France	633.30	238.80	131.60	262.90
Italy	642.65	109.90	121.10	411.65
Average	\$509.91	\$143.55	\$104.08	\$262.27

EXPERIENCES WITH SILVER ARSPHENAMIN

Michelson and Siperstein (*Archives of Dermatology and Syphilis*) discussing the value of silver arsphenamin state that after a careful survey of the literature and as a result of a limited personal use (250 ampules), they feel that they may safely state that silver arsphenamin is an efficient spirocheticide, which has a pronounced effect on the visible lesions of syphilis. It is not surprising that the effect on the Wassermann reaction is variable. The effect of all the antisypilitic remedies is variable in their action on this phenomenon. The personal factor must be considered, and since the same person cannot receive two drugs under precisely the same circumstances

(age of infection, etc.), it is impossible to make an accurate comparison. Suffice to say that the consensus of opinion of the many observers is that in the majority of cases of fresh syphilis a positive reaction becomes negative after the first course of from six to ten injections of silver arsphenamin. One of its distinct advantages is the absence of the characteristic, and often nauseating, garlic-like or ether-like, odor which patients detect when they are receiving the other arsphenamins intravenously.

The interval of choice for injections is from four to seven days, and the number of doses in a course varies greatly.

The majority of observers are not in favor of using silver arsphenamin and mercury simultaneously. In the writers' clinic they always complete a course of any of the arsphenamin products before beginning a course of mercury. They can see no advantage of the mixed plan of administration and believe that one has less control of either drug when they are given together.

Concerning reactions: There is apparently no reaction due to silver arsphenamin which is peculiar to that drug and has not been noticed with any of the arsphenamin group, with the possible exception of argyria.

Angioneurotic symptoms pass off rapidly and so do cutaneous manifestations if urticarial. If the manifestations are exanthematous they are a warning of intolerance and should be a positive indication for cessation of arsphenamin therapy, at least for a long period (three to six months); arsphenamin should be resumed only with the greatest caution.

One must bear in mind that silver arsphenamin is a more complex salt than any of the other arsphenamins and the physician must be on the alert for the slightest sign of intolerance. Its superiority over the other members of the group certainly is not so marked that a patient should in any way be jeopardized in order to receive this drug in preference to the other arsphenamin products.

Nothing has been published indicating a selective action of silver arsphenamin in neurosyphilis.

WOUND INFECTIONS

R. T. Pettit (Ottawa, Ill.), Washington, D. C. (*Journal A. M. A.*, Aug. 16, 1919), gives a review of the infected wounds of war assigned to Evacuation Hospital No. 8, during the St. Mihiel and Argonne-Meuse operations. An effort was made to obtain clinical information as to the time between injury and operation, effects of exposure and cold, of shock and hemorrhage, character of wounds, effects on local circulation, nature of the soil of battlefields and the influence of operative interference. Special effort was also made to secure the more important anaerobes and the hemolytic and nonhemolytic streptococci in cases in which gangrene developed. During October, it frequently happened that over 200 patients were operated on under general anesthesia within twenty-four hours, and between Sept. 10 and Nov. 13, 1918, 4,471

patients were admitted to the hospital. Nearly all of these received wounds in action, of which 2,993 were single and 1,387 multiple. The distribution of the wounds is shown in a table. In 206 cases, amputation was necessary, and during the period named there were 363 deaths in the hospital, gas gangrene being the most important cause (in 5 per cent. of the total wounded). This hospital received only the more seriously wounded, which accounts, in part, for the high incidence. Experience indicated that early surgical interference is one of the most important factors in the avoidance of gas gangrene. It occurred most frequently in the heavily muscled part of the body, the highest incidence being seen in the wounds of the shoulder and the leg, and in the arm, buttocks and thigh, in the order named. As transportable patients were quickly evacuated, bacteriologic examinations were limited to those that could not be removed. The methods used are described. Of 890 wounds examined bacteriologically, 478 (53 per cent.) were found to contain anaerobic bacilli, and 321 of these 478 (67 per cent.) at no time showed evidence of gas infection. Thus, in the experience of Pettit, more than two-thirds of the wounds anaerobically contaminated did not develop gangrene during an observation of at least five days, and often more than two weeks. In 139 cases in which cultures were taken directly from the wound, *Bacillus welchii* was found with other anaerobes in 65 per cent. Chain-forming cocci were found in 219 wounds examined, one-third of them hemolytic, and the results show that the streptococcus was no more frequent in gangrenous than in nongangrenous wounds.

ADENOIDS AND THE THYROID

Barr (*Practitioner*, June, 1921) believes adenoids are due to imperfect natural attempt to compensate for defective action of the thyroid. About puberty when the thyroid becomes active, adenoids usually shrivel up, and long before this the thymus has dwindled away. An inactive thyroid leads to poor mental and physical development in children, with liability to catarrh and increase of lymphoid tissue, and this is often associated with excessive salivary secretion and incontinence of urine. The treatment recommended is thyroid, iodine, calcium iodide, syrup of iodide of iron, and cod-liver oil. A lump of solid iodine placed in a current of air in the children's living room is also advocated.

EXPECTING TO BE IN THE MARKET FOR GALLSTONE OPERATION

Charley Harris, of Fort Worth, in the printing business, got slightly peeved at a letter from a doctor who wanted bids on several thousand letterheads, different sizes, different grades and different colors, and wanted the printing form held standing, so Charley took his typewriter in hand and wrote: "Am in the market for bids on one operation for appendicitis. One, two or five inch incision—with or without ether—also with or without nurse. If appendix is found to be sound, want quotations to include putting same

back and canceling order. If removed successful bidder is expected to hold incision open for about sixty days as I expect to be in the market for an operation for gallstones at that time and want to save the extra cost of cutting."

THE THERAPEUTIC USES OF THE ANTERIOR PITUITARY GLAND

These authors speak about the influence of the pituitary gland on mental and bodily development and its relationship with the thyroid gland. They state that the slow-developing, dull adenoid type improves under thyroid as far as the intellect is concerned but body and limb growth falters. Here the combination does exceedingly well. Next, in girls the mentality may be active but sexual development is rudimentary. They can be helped wonderfully by anterior pituitary medication. It should be given in good doses for two or three years.

In enuresis the combination of the two extracts may succeed when thyroid alone fails.

In premature senility the use of Hormotone is advised.

The authors in conclusion state that the anterior pituitary is the predominant partner in the plurigland and the use of this natural help should go far to prevent the caries of teeth in children.—T. Bodley Scott and F. W. Broderick (*The Practitioner*, October, 1921).

TESTIS AND OVARY IN DEMENTIA PRAECOX.

Having in mind the association of dementia praecox with disturbances in the functions of the sex organs, Sir Frederick Mott ("The Psychopathology of Puberty and Adolescence," *Jour. Ment. Sc.*, July, 1921) recently made an extensive study of the lesions in the testis and the ovary in patients with mental disorders. In dementia praecox he finds that the testis undergoes regressive changes which, according to the duration of the disease, vary from slight morphologic changes in the cells of the seminiferous tubules and spermatozoa to complete atrophy of the tubules and absence of spermatozoa. In contrast, the testes of patients with advanced general paresis, as representing an acquired form of mental disease, show only atrophic changes of a focal nature alongside of which active spermatogenesis may be demonstrated. Even in old men, the testes show more active spermatogenesis than in some of the early adolescent cases of dementia praecox. Studies of the ovary gave similar results, but less clean cut, because of the prevalence of chronic infection in this organ, which, in itself, hinders follicle maturation. Of course, it is not to be concluded that dementia praecox is caused by changes in the testes or ovaries; but, as an editorial writer in the *Journal of the American Medical Association* well says, the close association of the disease with changes in these

organs suggests a relationship which, to be better understood, will require much future investigation.

RELATION OF PITUITARY GLAND TO EPILEPSY

Sixteen cases, representing all types and degrees of presumed epileptic convulsions without regard to any presupposed etiologic factors except tumors were investigated and the results are given by Lowenstein (*American Journal of Medical Sciences*, January, 1922). Five cases were apparently benefited by pituitary gland administration. The preferable product seemed to be the extract of the whole gland, and the most satisfactory mode of treatment was hypodermically. No cases showing the "typical epileptic constitution" were benefited. There was no improvement in those patients with abnormalities of the fundi or visual fields. Neither physical signs referable to the hypophysis, mental reactions (except the "typical epileptic constitution"), changes in the sella turcica demonstrable by the Roentgen-rays or variations in weight or health offered any criteria by which the relative degree of success or failure of the treatment could be predicted.

ADRENALIN IN INCOERCIBLE VOMITING OF PREGNANCY

Rathery and Bordet (*La Presse Médicale*) appear to have made a striking discovery in regard to the action of adrenalin in the morbidity of pregnancy. The drug was administered by the mouth, by hypodermic injection, and by enema, always with the same result. The technic was somewhat complicated, the dose on the first day being 1 mg. hypodermically; on the second day, 1 mg. each by mouth and by hypodermic injection, and on succeeding days the same until 8.5 mg. had been given in six days. Vomiting ceased at once, but lest this be attributed to suggestion the authors note that the organ becomes remarkably tolerant, so that anything in the way of food and drugs is readily retained. The tension of the blood is not increased until about the seventh day. Apparently there is a shortage of adrenalin in these subjects, and not until this is made up does the usual physiologic action appear. The reader may be reminded that the pigmentations of pregnancy which so commonly appear also point to shortage of suprarenal substance.

THE ST. LOUIS SESSION

AUTHORIZATION OF SPECIAL RAILROAD FARES BY VARIOUS PASSENGER ASSOCIATIONS

The New England Passenger Association has authorized the sale of special rate round-trip tickets from points within its territory to St. Louis. These tickets are to be sold on presentation of identification certificates and at the price of a fare and one-half. Similar authorization has been issued, as previously announced, by the Trunk Line

Association, the Central Passenger Association, the Southeastern Passenger Association, the Southwestern Passenger Association and the Western Passenger Association. The combined territories of these associations include practically all the continental area of the United States east of the Rocky Mountains.

The identification certificates are now available. Members may secure these certificates by writing to the Secretary of the American Medical Association, 535 North Dearborn Street, Chicago, and enclosing a self-addressed, stamped envelop.

THE IMPORTANCE OF USING PITUITARY EXTRACT WITH CARE AND INTELLIGENCE IN OBSTETRICS

Mendenhall (*Indianapolis Medical Journal*, Aug., 1921) emphasizes the great necessity of administering this drug with the utmost care and discrimination, and points out the proper indications for its use. He says no one questions its safety and value under a great many conditions that may arise following the birth of the placenta. Two noted obstetricians are giving it routinely immediately upon the birth of the child; both have very large series of cases and as yet have had no unpleasant results, but until more has been done along this line definite conclusions had better be reserved. A number of operators are administering pituitrin just as the uterus is being incised in Cesarean section, or very promptly after extraction of the child, and when sustained by ergot this procedure may be strongly indorsed. Some authorities report fairly successful results in the administration of pituitrin to aid in the emptying of the bladder during the puerperium. When the cervix is fully dilated, when it can be accurately determined that there is no disproportion between the passage and the passenger, when the presentation and position are normal, when there are no obstructing tumors, and when the pains are weak and declining we may be said to have indications justifying the cautious use of small doses of pituitrin—2 to 3 minims—remembering that episiotomy, or low forceps, or both, are usually better obstetrics. Contraindications to the use of this drug are undilated cervix; disproportion between passenger and passage; abnormal presentation or position; pressure of obstructing tumors; scar from previous Cesarean section or myomectomy; heart disease in the mother; eclampsia; threatened asphyxia of the child *in utero*, and when contractions are already strong. If the above indications and contraindications are met it is obvious that the administration of pituitrin during labor at least will be exceedingly infrequent. In conclusion, a warning is sounded that he who administers pituitrin to a patient in labor is using a very powerful and quick acting drug, whose strength is unknown and whose action upon the particular patient can by no means be predicted, whose use has resulted in the prompt death of a large number of women and a still larger number of children, and whose usefulness is limited to very narrow fields.

ALCOHOL INCREASES EFFECT OF DISINFECTANTS

Hansen's extensive research has apparently demonstrated that addition of a small amount of alcohol to a disinfectant reduces the surface tension and materially enhances the bactericidal power. As a typical example of what can be accomplished in this line, we quote only his tests with anthrax spores: 0.1 normal hydrochloric acid required over twenty-nine hours to kill anthrax spores, the surface tension 0.983; 70 per cent. ethyl alcohol required over thirty-one hours to kill the spores, the surface tension, 0.342. On adding the alcohol to the hydrochloric acid, the anthrax spores were killed in half an hour, the surface tension being the same, 0.342. The disinfectants, the action of which was thus multiplied many times by addition of 10 to 20 per cent. of ethyl alcohol or 5 to 10 per cent. of propyl alcohol, were hydrochloric acid, phenol, mercuric chlorid and chromic acid. He theorizes that the alcohol renders the membrane more permeable, and that this effect depends on the surface tension.—*Hospitalstidende*, Copenhagen.

THE ADVANTAGES OF SILVER-SALVARSAN IN SYPHILIS

Baketel (*Chicago Medical Recorder*, June, 1921) states that as a result of these observations these opinions of silver-salvarsan have been formed:

1. It is better borne than any of the other arsphenamines, only seven reactions have come to the author's attention. Of these, four, two men and two women, were delayed between five to six hours after injection and consisted of chills and fever and did not occur again in the same patient. One, a woman, was angioneurotic in type and very mild; another, a woman, complained of headache and dizziness on leaving the table, a condition that speedily disappeared. The last, a man, who had not evacuated his bowels on the day of injection and had partaken of a heavy meal, showed fairly severe nitritoid symptoms after a concentrated injection in distilled water.

2. The clinical symptoms, particularly chancres and mucous patches and condylomata, disappeared with great rapidity in most cases. Action on other cutaneous lesions was practically the same as that following arsphenamine and neoarsphenamine.

3. The product is almost immediately soluble in water, needs no alkalinization and the quantity of the drug employed is very small.

The chemotherapeutic factor is large, while the burden of elimination is small on account of high efficiency.

5. The serologic results, as far as observed, are easily comparable with the other arsphenamines, both in primary and secondary lues. In tertiary types it may be preferable to utilize mercury in combination.

6. No cases of albuminaria were seen.

7. Many patients were able to return to their places of business from the hospital or office, although this

procedure is not to be recommended as routine practice.

8. Silver-salvarsan's use in the intraspinal treatment of neurosyphilis, while limited, has been eminently satisfactory, and it would appear to offer a therapeutic agent of unusual value.

A \$15,000,000 PLAN TO EDUCATE 400 MEDICAL STUDENTS*

A very serious problem in connection with medical teaching is its rapidly mounting cost. This has already become excessive, and public opinion is not likely long to sustain any scheme of medical education whose cost is so large. It is not difficult to find an explanation of this mounting cost. Just as education itself is the spoiled child of the state, so medical teaching is the spoiled child of education. It is thought unduly critical and unsympathetic to question the wisdom of any proposal to increase the sums called for to carry on systems of school, college and university education, and it seems similarly hard-hearted and un-

*From the annual report (1921) of the President of Columbia University.

BUDGET

There is much talk nowadays about the budget system in household and government expenses.

Here is a budget for living on \$1.50 a day, submitted for the benefit of reforms by J. V. Patten, President Hero Furnace Company, Sycamore, Ill.:

Gasoline	\$0.56
Oil .....	.05
Tire upkeep .....	.12
Raisins .....	.22
Breakage .....	.32
Corks .....	.02
Yeast .....	.04
Miscellaneous .....	.17
Total	\$1.50

PAINS OF TABES AND CACODYLATE OF SODIUM

Marechal (*Urolog. and Cut. Review*, June, 1921) uses 50-percent cacodylate of sodium solutions for intravenous injections in syphilis, showing that the danger zone in the use of this drug is far removed from that stated by American authorities. Since his publication of this fact in 1918, many therapeutic investigations have been undertaken in France with this remedy, and physicians are beginning to use methylarsenates with less timidity than formerly. Rozies and Miquet enumerate various affections in which this organic arsenical compound may be employed in massive doses. Among other uses, it is of special value in eczema.

Encouraged by results obtained in other diseases, the author has tried it in five cases of painful crises of tabes in which the usual treatment was inefficacious.

The dose employed was 1 to 5 Grams intravenously, beginning with 1 Gram (15 grs.) and increasing by 1

Gram for every injection. In one case, 48 Grams were thus administered; in another, 15 Grams; in another, 19; in another, 55, and in another 28 and 5/10 Grams

In no case was there any general reaction and the pains were quickly ameliorated by these large doses of the cacodylate of sodium.

Public Health

NEW CLINIC FOR CRIPPLED CHILDREN ESTABLISHED

A new clinic for crippled children has been established by the Division of Child Hygiene and Public Health Nursing of the State Department of Public Health at Rochelle. Dr. L. A. Beard, president of the board of directors of the Ogle county tuberculosis sanatorium was largely responsible for the establishment of the clinic and he has been placed in charge of local details. The clinic will function as an integral part of the work of the DeKalb county health league, an organization which effectively coordinates the efforts and expenditures of all health agencies, whether governmental or extra-governmental, in DeKalb, Lee, Whiteside and Ogle counties. The opening of the crippled children's clinic is only one of the new and worthwhile functions made possible by the unification of public health activities in the district.

BRANCH DIAGNOSTIC LABORATORY AT EAST ST. LOUIS

The State Department of Public Health has completed arrangements for establishing a new branch diagnostic laboratory at East St. Louis. The diagnostic work, which will include only the examination of diphtheria cultures, will be carried out in the city public health laboratory under the direction of the local health commissioner, Dr. C. W. Lillie. The East St. Louis branch will also be utilized as a distributing station by the State Department of Public Health; such things as specimen mailing containers, swabs, antitoxin, triple typhoid vaccine, etc., being available to physicians in southern Illinois from that point. This brings the total number of branch laboratories in the state up to seven, the others being located at Ottawa, Urbana, Mt. Vernon, Galesburg, Moline and Chicago.

Correspondence

LIMIT MEMBERSHIP IN THE A. M. A. HOUSE OF DELEGATES TO MEN WHO ARE ACTUALLY ENGAGED IN THE PRACTICE OF MEDICINE

St. Louis, April 18, 1922.

To the Editor: Please permit me, a member of the Chicago Medical Society, to congratulate

you on the March number of the ILLINOIS MEDICAL JOURNAL for its fight on the present trend to regulate everybody, and do for people the things they should do for themselves at the expense of the medical profession.

Why don't you push a resolution at the next meeting of the A. M. A. to limit membership in the House of Delegates of the A. M. A. to men who actually actively engaged in the practice of medicine or surgery, and eliminate a lot of salaried secretaries who have had no or no recent experience in the problems which concern those actually in practice. I also think membership in the board of trustees, and all of the councils of the A. M. A. should be limited to actual practitioners. We could also well get along without most if not all of our professional secretaries, who for the most part are failures as practitioners, without enough actual experience to be competent to lead the profession as it should be led for the best interests of the profession and the public.

I think the full time medical teacher should not be considered as one actually actively engaged in the practice of the profession for the purpose of being eligible to membership in the House of Delegates or of any of the various councils.

I think some steps should be taken to curb the many charity clinics. Neither the grocer nor the druggist supply those institutions with groceries or drugs free of charge. Why should the doctor give his services free? Every time the sun goes down so much of the doctor's capital is consumed. Hence he is not only giving his profits, but he is also reducing his capital in the time he gives charitable clinics. It seems to me that if a church or other charitable or philanthropic institution wishes to run a free clinic it should pay the attending doctors for their services, just as it will pay the grocer or the druggist for his goods, or the plumber or other mechanic for work done. It has often amused me to see a plumber paid for repairing a broken water pipe in a clinic building without any question, and then expect the doctor to give his time and energies free and be thankful for the opportunity to give his services free, even though he is neglecting his business from which he supports his family to do it.

One of the reasons that the medical profession

does not have the confidence of the people to a greater extent than it does is because we are constantly giving too much of our services away.

Why should not Cook County pay the doctors on the staff of Cook County Hospital for their services? The groceries are paid for. The drugs are paid for. The scrub women and janitors are paid for their services. Are the services of the medical and surgical staffs worth less than the services of the janitors and scrub women?

Hoping you will keep this fight up to prevent trends towards state medicine and for the best interests of the practicing physician and surgeon, I am,

Ever faithfully yours,

IRA C. YOUNG, M. D.

4496 Laclede Avenue.

Society Proceedings

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular Meeting, April 5, 1922.

Rational Application of Gland Extracts in Therapeutics.....Louis Klein, Detroit, Mich.

Discussion—Frank Wright, James H. Hutton, Chas. L. Mix.

Regular Meeting, April 12, 1922.

1. The Treatment of Goiter.....Sumner L. Koch
Discussion—Luther J. Osgood

2. Duodenal Reflexes.....Robt. W. Keeton
Discussion—Walter W. Hamburger,
A. A. Goldsmith

Regular Meeting, April 19, 1922.

1. Known Pathology in the Lower Spine with a New Operation for Relief..Paul E. Magnuson
General discussion.

2. Tendon Transposition in the Treatment of Poliomyelitis.....Maurice A. Bernstein
Discussion—Edwin Ryerson

3. Pre-Operative and Post-Operative Treatment of Surgical Patients; a plea for more rationalism and less routine.....
.....Geo. de Tarnowsky

Regular Meeting, April 26, 1922.

1. A System of Applying Local Anesthesia. Motion Picture Reels and Lantern Slides
.....Robt. Emmett Farr, Minneapolis, Minn.
Discussion—M. L. Harris

2. Extraordinary Development of Tactile and Olfactory Senses Compensatory for the Loss of Sight and Hearing. Demonstration and Exhibition of a Remarkable Case.
.....T. J. Williams
Discussion—Robt. H. Gault, Prof. Psychol., Northwestern University, C. M. Robertson, J. F. Burkholder.

CHICAGO OPHTHALMOLOGICAL SOCIETY

Meeting of May 26, 1921—Continued

The greatest objection to the intracapsular operation that is offered by prominent surgeons the world over is that the pressure necessary to remove a lens in its capsule is dangerous, but if an instrument that will successfully pull the cataract out is produced, it will unquestionably obtain a hearing. If the Barraquer instrument is adopted, I believe universal success can only be obtained when the lids are properly controlled, as by the technic of Col. Smith.

Dr. J. W. Millette, Dayton, Ohio, read for Dr. J. W. Wright of Columbus: "I am pleased to know that Colonel Smith has so enthused the profession in this operation that much good will eventually result. Although my experience in this operation compares with that of Dr. Smith's in a very feeble way, I have confidence that the intracapsular operation will be so firmly accepted by the profession in the near future as to be an established procedure, whether the technic is Dr. Smith's or mine, or some modified form."

Dr. Millette continued: "For a number of years, I was very closely associated with Dr. Green of Dayton, Ohio, who introduced the Smith-Indian method into America. I attended him nearly every Tuesday and Friday, when he went to the Old Soldiers' Home to do his work, where most of his cataract work was done. On one of these trips he remarked to me that he had just read Colonel Smith's paper, in the India Medical Journal, in which he described his method of removing cataracts. After reading the description over very carefully, he performed twenty-seven operations, and these were reported to the American Medical Association—which was the introduction of the Smith intracapsular operations into America.

"It fell to my lot, upon the death of Dr. Greene, to succeed to his work at the Soldiers' Home, and I have consistently employed the intracapsular operation ever since. A few cases of course are done by the capsulotomy method, but most of my work has been intracapsular. I am very enthusiastic about it, and I am certain that I get better results than I would with the capsulotomy method. Few if any of us get perfect results. Many of the papers we read or hear read are misleading, in that they give too good results, not alone in the intracapsular, but in the capsulotomy method as well.

In those operations which were performed by Col. Smith at Dayton, all were quite successful. At the Soldiers' Home, we had 12; 11 of them are perfect results, three of them were simple operations, and the pupils are central. The vision I have not fully tested yet. We had one infection at the Soldiers' Home, and the man himself admits it was his fault, for within three hours after the operation had been performed, he had his fingers up under the bandage.

"At St. Elizabeth's Hospital, we had one infection and one hemorrhage. In neither of these two cases, however, did we expect a good result, and Colonel Smith at the time he operated said that he hoped we might have good results. In one, the left eye of the woman had been removed following glaucoma, she had been septic most of her life, and the remaining eye was almost blind from glaucoma and cataract. She had a panophthalmitis following. In the other case, the woman had a nystagmus tremulous iris, and a very small lens. She has had four children, whose eyes are all of the same character, and there are four or five generations in which this has been maintained, so that there was not much to expect in that case.

"In none of these cases at St. Elizabeth's Hospital did I open the eye until Friday of the following week. Colonel Smith had operated on both eyes of an old colored man; a very good patient. I went in Friday morning the week following; seemingly he had a little gastro-enteritis during the week, but that morning he was feeling good. At 10:45 the nurse saw him, and he was feeling good, and at 11:10 they went in to get his order for luncheon, and he was dead; it was diagnosed apoplexy. The eyes were perfectly healed, and there was no redness, and with a seemingly perfect result."

Dr. W. Benedict, Rochester, Minn.: Three years ago I went on record in the presence of Dr. Fisher, as being in favor of the intracapsular method of cataract extraction. Not particularly the operation we have heard described to us tonight, but in general intracapsular extractions. Early in my work I read carefully the articles by Colonel Smith and others who have done intracapsular extraction of cataracts and attempted in my own way to follow them, and as my experience widened, to modify their method. Probably now my extractions are 50-50 intracapsular and by the capsulotomy method. I will say, however, that I lean more toward the intracapsular method of extraction, because our complications are fewer and the final results are better.

In most everything that Colonel Smith has advocated, particularly as to the size of the incision. I agree with him. Without any disrespect at all to Colonel Smith, I will say that I feel it is better to traumatize the cornea less and dress the cases earlier. I have very much less fear in looking at an eye that has been operated on in forty-eight hours, than I have to let it go nine days, and that is based purely on experiences that I have had. I believe there is no danger of loss of vitreous interfering with the ultimate vision in certain classes of cases. When fluid vitreous, as we commonly speak of it is lost, I invariably fill the eyeball until it resumes its normal contour, with salt solution, before the eye is closed.

My experience, small as it has been, has also been different from Colonel Smith's in this respect, that on two, and possibly three occasions I have seen secondary cataracts, after an intracapsular extraction. The same condition was described a year ago by Dr. S. Lewis Ziegler, of Philadelphia, which he called an "adventitious membrane." This membrane was so thick that it required needling for better vision. In once case, this adventitious membrane was evidently due to a hemorrhage in the chamber; in the other, the cause was not determined.

Furthermore, I have had two cases of iritis following intracapsular extraction; in one of these the iritis may have been influenced by infected teeth, in the other, the cause was not determined. I fully agree with him that the presence of a portion of the capsule, rather than the presence of loose lens matter in the anterior chamber may be a cause of iritis.

Dr. W. H. Wilder, Chicago: I think that there can be no dissent from the statement that Lt.-Col. Smith as well as other ophthalmic surgeons have made, that the removal of the cataract in its capsule is the ideal method. We should like to get rid of the capsule, for its presence so often gives rise to difficult after-ataract. There is no question that excellent results are obtained by the intracapsular method, but it is equally true that excellent results are obtained by the capsulotomy method. The whole question hinges on the relative safety of the two methods.

As an argument in favor of the intracapsular method it is stated that the presence of the capsule after the extraction of the lens is the cause of a great deal of irritation and possibly post operative inflammation of the eye. With this my own experience does not agree. Of course, if the capsule becomes loosened and entangled in the wound it may delay healing and may even cause serious complication such as glaucoma, but this is very uncommon. Much more frequent is irritation of the eye from the presence in the anterior chamber of unexpelled cortical substance, and I think that it is the cortical substance rather than the remaining capsule that gives rise to the post operative irritation; and if this cortical substance or most of it can be removed from the eye at the time of the operation, either by gentle manipulation or by irrigation, the case gets well much more promptly, and often without any reaction.

Naturally the difficulty of removing all of the cortical substance is increased if the cataract is not quite mature, and it would seem to me that in this class of immature cataracts the intracapsular method would have its greatest usefulness if it can be demonstrated to be equally safe. In this connection it is interesting to note that the free cortical substance in the anterior chamber seems to cause much more irritation in the old than in the young eye. How frequently we observe the juvenile cataracts being absorbed after dissection with little irritation of the eye, certainly nothing like that which follows

when cortical substance in any amount is left after extraction in older subjects.

One point that is emphasized in the excellent paper of Colonel Smith, and I believe by all the advocates of the intracapsular method, is the importance of perfect control of the lids during the operation, and for this purpose a suitable retractor and a skilled assistant would seem to be necessary. Without such control of the lids, the dangers of the method are apparent.

I cannot let go unchallenged the statement, that has been made in the discussion, that loss of vitreous is not such a serious thing. It is one of the most serious accidents that may befall in the course of a cataract operation, and one never can foretell how grave may be its results. Of course, everyone with any degree of experience has had cases that have terminated favorably after vitreous loss of a certain degree. If there is loss of vitreous of any great extent, detachment of the retina or choroid with intraocular hemorrhage may terminate the case then and there. If not so serious as this, delayed healing with cloudy media prevent good vision and stamp the operation a practical failure. We all know the painful sequelae of such cases and if any method can be devised to do the cataract operation with a minimum risk of loss of vitreous, we should certainly welcome it.

So it occurred to me that one of the most striking points in Colonel Smith's paper is this: "Can we in any way block the orbicularis muscle so that it will be temporarily paralyzed?" He has told us that he has carried on experiments on this subject in attempting to block the seventh nerve. Others have been working along the same line and it seems to me that if anything of that kind could be accomplished, it would be one of the greatest additions to our technic that has ever been offered, because then such a method as the intracapsular operation could be practiced with much less danger of vitreous loss, even by the less experienced operator.

Until safer technic is perfected, and unless he has had exceptional opportunities for studying and practicing this method, my advice to the younger operator would be to stick to the method which combined experience tells him is the safest one, and I do not want the idea to go out that the loss of vitreous is a trivial matter for although we may get good results in some cases, we are sure to get some very poor results or failure in many others.

Now that brings out the last point I would like to emphasize, and it is this: there are so many little variations of technic. If a man finds that he has a technic which suits him and with which he is getting good results, unless he readily adapts himself to different methods he had better stick to that, rather than to be constantly chafing at every suggestion.

Dr. Oliver Tydings would ask, Is there any reason why we should stick to the old in spite of the superiority of the new? A rhinologist who had held the chair of that branch for twenty years in the State University, who had never done a sphenoid operation because he had heard a German professor say, "No man ever operated on the sphenoid without a death." I will say to any man who will adopt the technic of Col. Smith today he will soon acquire confidence which will enable him to do a better operation than he will ever do by any other method.

Dr. Outen had seen Col. Smith work in India, and later he had been permitted to operate in his clinic, and had lost the fear of cataract operations. Don't think the patients who visit Col. Smith's clinic are ignorant. They are not by any means. Some of the highest intelligence of India has been to that clinic and the Hindoo is one of the most enlightened men in the world.

Dr. H. W. Woodruff, Joliet, Ill.: The outstanding feature of Col. Smith's paper is its practical nature. My experience with the cataract operation has been small indeed compared with Col. Smith's; but it has been my own and therefore more valuable to me than some one else's experience.

There are objections to allowing operated eyes to remain bandaged and without inspection for as long a period as nine days. The following case will illustrate one of these objections: Ten days after performing a cataract operation, the corneal flap was found protruding between the eyelids. There was

no infection but the cornea was naturally very white. This corneal flap could only be held in place by a conjunctival flap; and much to my surprise the cornea regained its transparency after this operation was done; but only after several weeks. Ultimately, useful vision was secured.

Also infection may follow the cataract operation. It is not always painful, and if the eye has not been inspected for nine days the cornea may slough entirely away. Infection is not by any means entirely hopeless if discovered early enough. Many of these cases can be saved by the deep subcapsular injections of solution of Cyanide of Mercury 1 to 1000. To save infected eyes they should be inspected twenty-four to forty-eight hours after the operation.

By using the Smith hook the inspection of these eyes is easy and safe.

Dr. W. E. Quine being called upon referred to Col. Smith's experience as a general surgeon. He regarded ophthalmology as the most highly developed specially, but thought that it has not yet reached its limits.

Col. Smith is closing said: The vitreous is much more liable to escape in cases where it is fluid. Then as to determining results of the escape of vitreous, where the vitreous is fluid, you are not assuming a fair case. An eye that has a cataract in it is not a sound eye to start with, and an eye that has a fluid vitreous is very far from a sound eye; and the results would be much more liable to be bad with the fluid vitreous than with a sound vitreous. Dr. Wilder does not go so far as to say that we despise the escape of vitreous. I don't know that any ophthalmologist despises the escape of vitreous; but we want to see as little of that precious body as we can. It is all a question of how we can see the least of it, and we are just as keen to see as little of it as any man.

I have seen a lot of congenital cataracts, with the cornea from the size of a frog's eye up. Those congenital ones are highly hereditary, and you see three or four in one family, and if you go back a generation you will find them all with cataracts. These patients are really never sound with a cataractous eye, and when you get one congenital malformation, I think everybody recognizes that you are exceedingly liable to find two or more others in the same patient. You may find them idiotic. Apparently all should go right, and lo and behold you occasionally get a violent petit mal, so that I would say that your prognosis of the patient should not be over optimistic in the case of congenital cataract. We have to needle them or extract them, but we do not give the patient a very glowing prospect.

As regards the corneal flap being pushed down, I presume, by the upper eyelid. I have not seen those cases, but it might have occurred.

However, I have seen the patient often do his utmost to fix it there on the operating table, and in a case of that sort I have no hesitation in putting a stitch in the two eyelids. He will have his eye open and get it in this position if he can, but if you will simply put a small stitch in the two eyelids, I think there need not be any further repetition of this experience.

In regard to Dr. Wilder's remarks about the needling of a cataract in childhood. I would say that a cataract in childhood and youth has need for a very careful diagnosis before you touch it. If it is of an opalescent appearance, you can needle it with beautiful results, but if it is a sort of a pale, white cataract you may needle it forty times, and that pale, white, stringy, jelly-like appearance will continue, and it will not be absorbed; it should be extracted.

ROBERT VON DER HEYDT,
Corresponding Secretary.

GREENE COUNTY

Greene County Medical Society met in White Hall, March 10, 1922. After partaking of dinner at Hotel Pierson, the meeting was called to order by Dr. H. Burns at 1:30 P. M. in the "Illini" Club Rooms.

Dr. F. Russell was made temporary president

and Dr. S. F. March temporary secretary, as the regular officers were not present.

Dr. H. P. Bierne of Quincy, Ill., councillor for this sixth district, addressed the meeting on state medicine and on the use of radium in the treatment of cancer.

The following resolution was passed:

The sense of this meeting is that there should be a change of policy and reasons to safeguard the rights of the medical profession as a whole and to head off and inhibit the economic encroachment of the state on our rights as a profession, it being understood that we realize the community rights in communicable diseases, to which all rules of prevention we heartily concur.

WHEREAS, The spirit of unrest and dissatisfaction with the encroachment upon the rights of the medical profession is increasing day by day, and

WHEREAS, The Journal of the American Medical Association and the Board of Trustees, who are responsible for its policy, have remained silent, and not used its columns to fully educate the general public on the medical side of the various problems that are confronting us, and

WHEREAS, Dr. McMechan and other leaders have taken up the cudgel in defense of our profession, and urge a general cleaning house in the management of the American Medical Journal.

Be it Resolved, that without impugning the motives or intentions of those responsible for the present policy of the American Medical Journal, we, the members of the Greene County Society (Illinois) respectfully urge our delegates to the House of Delegates of the American Medical Association to use all honorable means to bring about a change in the policy and personnel of the management of the American Medical Journal and its Board of Trustees.

The following resolution was also passed:

That a committee composed of the secretary and two members of the County Society be appointed by the society president to support a medical practice act and see that each candidate for the state assembly be consulted as to his standing on this question.

Those appointed were: Dr. H. Burns, Carrollton; Dr. Smith, Roodhouse; Dr. Knox, White Hall. Meeting adjourned.

DR. S. F. MARCH, Acting Secy.,
Carrollton, Ill.

MACOUPIN COUNTY

The Macoupin County Medical Society met in the New Commercial Club Rooms, Virden, Illinois, March 28, and held a business session at which the following were elected: President, M. Herschleder, Mt. Olive; vice-president, E. E. Bullard, Girard; secretary-treasurer, T. D. Doan, Scottville; delegate, T. D. Doan, Scottville; alternate delegate, M. Herschleder, Mt. Olive.

After the business meeting a splendid dinner was

enjoyed by all those present. The subject "How I Collect My Fees" was thoroughly discussed. It was the universal opinion that while no physician does collect 100 per cent, yet it was unanimously expressed that he should be able to do so.

It was the general opinion that a physician in general practice could collect his own fees with better general results, including the friendship of his patients than he could collect them by obtaining the services of a collecting agency.

T. D. DOAN, Secretary.

MADISON COUNTY

Our March Meeting

The Madison County Medical Society met in Collinsville on March 3, 1922. In the absence of the president and vice president, Dr. E. C. Ferguson was called to the chair. Fifteen members and three visitors were present.

A letter from Dr. Geo. T. Palmer about clinicians for our tuberculosis clinic to be held in June was read and upon motion of Dr. E. F. Wahl it was decided to have two extra clinicians at the clinic, at the cost to the society of \$100. This will assure four experts to serve that day.

Vice-president Schroeder came in and took the chair.

The Community Nurse read her report for February which was accepted and ordered placed on file.

Dr. A. B. McQuillan of East St. Louis then gave us a wonderful illustrated address on "The Prevention of Deformities," which was one of the very best we have had in recent meetings. It was followed by an animated discussion and he was given a rising vote of thanks. Adjourned to meet in Alton on the first Friday in April.

Our April Meeting

The Madison County Medical Society met in Alton on April 7, 1922, Dr. A. F. Kaeser, president, presiding.

Thirty-one members and two visitors were present.

The motion of Dr. Taphorn to appoint a committee of three men to arrange for a banquet in May was defeated by a vote of 8 to 14.

By a vote it was ordered that we extend assistance to Miss Gladys Cummings and Orville Ewing, both of Alton, by sending them to St. John's Sanitarium at Springfield for care and treatment at our expense. In the matter of extending aid to Andrew Carrus of Madison, now a patient at the Harrison Tuberculosis Colony at Collinsville, it was ordered that the whole matter be left to the discretion of the secretary.

The terminal cases of a patient at Granite City and one at Collinsville and other terminal cases were brought up by the secretary and thoroughly discussed and Dr. Pfeifferberger moved that we request the Madison County Sanitorium Board to take care of terminal cases and that we as a society

would take care of improvable cases. Motion carried.

The community nurse read her report for March which was accepted and ordered placed on file.

Dr. G. B. Smith presented the plan of the Alton Free Clinic and after much discussion a motion prevailed that the Madison County Medical Society hereby endorses the Alton Free Clinic.

Dr. Don Deal of Springfield read a valuable and interesting paper on "The Diagnosis of Peptic Ulcer and Gall Bladder Diseases," for which he was given a rising vote of thanks. Adjourned to meet in Edwardsville on the first Friday in May.

SCHUYLER COUNTY

The March meeting of the Schuyler County Medical Society was held at the home of Dr. and Mrs. Ball at Rushville.

A 6 o'clock dinner was served by Mrs. Ball and thoroughly enjoyed by members.

The host read an interesting paper on "The Present Epidemic," which was discussed by Drs. Munson and Justice.

The society adjourned to meet at home of Dr. and Mrs. W. F. Justice on Tuesday evening, April 4.

Meeting April 4, 1922.

Dr. and Mrs. W. F. Justice entertained the Schuyler County Medical Society Tuesday evening, April 4.

As usual, the most interesting feature of the evening's program was furnished by the hostess by inviting those present to the dining room and serving a splendid dinner.

After dinner the time was taken up in planning for an all day meeting in June.

Society adjourned to meet at home of Dr. and Mrs. Munson Tuesday evening May 2.

C. M. FLEMING, Sec'y.

Marriages

WILLIAM A. BORIN to Miss Phoebe Grinnell, both of Bartonville, Ill., February 13.

JAMES M. MITCHELL to Miss Ruth Huntington Forbes, both of Pontiac, Ill., February 22.

MARK WHITE to Mrs. Pauline Porter Muirhead, both of Chicago, March 25.

Personals

Dr. Manly H. Shipley has resigned as medical director of the Rockford Municipal Sanatorium.

Dr. Gustavus Blech recently addressed the Elgin Medical Club and was elected an honorary member of the society.

Dr. George T. Palmer, president of the Illi-

nois State Tuberculosis Association, gave an address at a special meeting of the Peoria Medical Society, March 29.

Dr. Emil C. Lofgren has been appointed a member of the board of examining surgeons for pensions for Winnebago County, to succeed Dr. Dudley W. Day, resigned.

Dr. Herman N. Bundesen, health commissioner of Chicago, was presented with a diamond studded gold star at a surprise party, given April 13.

Dr. Gibson P. Livingston, Upper Alton, was robbed of \$1,000 in cash and \$3,000 worth of jewelry when a burglar entered his home on the night of March 22.

Dr. Isaac D. Rawlings, state director of health, discussed state clinics in their relation to the practicing physician and the public before a meeting of the Decatur and Macon County Medical Society, April 14.

Dr. Walter C. Bley has been appointed local surgeon of the Baltimore and Ohio Railroad at Beardstown, to take the place of his father, Dr. George Bley, deceased.

Prof. Alexander Maximoff, professor of histology and embryology at the Imperial Academy, Petrograd, has arrived in Chicago from Russia to accept an appointment in the department of anatomy at the University of Chicago.

News Notes

—The contract has been let for the Ravenswood Hospital, to be erected at a cost of \$300,000.

—A new hospital will be erected at La Harpe at a cost of \$100,000.

—A new \$250,000 addition will be built at St. John's Hospital, Springfield.

—The contracts have been let for the erection of a Catholic Orphanage at Alton, to be erected at a cost of \$600,000.

—Excavation has been started for the new nurses' cottage for the Soldiers' Home, Danville, to be erected at a cost of \$37,000.

—Contracts have been let for a new hospital building connected with the Victory Memorial Hospital, Waukegan. It is estimated that \$30,000 will be spent on equipment.

—Bids have been asked for the construction of the new hospital building to be erected by the Christian County Tuberculosis Board at Taylorsville. The building will cost approximately \$100,000.

—Dr. Ralph W. Nauss, assistant epidemiologist of the State Department of Public Health, recently completed the task of checking up on all typhoid fever carriers whose identity is known to the department, in Northern Illinois. Particular attention was paid to such carriers as were likely to be engaged in or associated with the production and sale of milk and other dairy food products.

—At a meeting held April 7, a Chicago Association for the Relief and Prevention of Heart Disease was formed to undertake the type of work carried on by similar organizations in New York and Philadelphia. The following officers were elected: President, Dr. James B. Herrick; vice president, Dr. R. D. Preble; secretary, Dr. Sidney Strauss, and treasurer, Mr. Frank O. Hibbard.

—In order to forestall the probability of typhoid fever epidemics in the many river communities that have suffered severely from serious flood conditions, Dr. Isaac D. Rawlings, state director of public health, has written to local health officers advising them to make every effort at obtaining general antityphoid vaccination among all persons in their districts who will be exposed to danger through the use of polluted water when the floods subside.

—It is announced by the national association that the tuberculosis clinic service organized for the Illinois Tuberculosis Association will be given wide publicity. Clinics have been held in practically every county in the state under the auspices of the county medical and the county tuberculosis societies, and under the direction of Dr. George T. Palmer, Springfield, with his staff consisting of Dr. Orville W. McMichael, Chicago; Dr. James W. Pettit, Ottawa; Dr. Roswell T. Pettit, Ottawa; Dr. Robert H. Hayes, Chicago, and Dr. Herman H. Cole, Springfield.

—The National Canners' Association has recently donated \$10,000 a year for two years to the University of Chicago for investigation into the causes of disease connected with canning. The work will be under the direction of Prof.

Edwin O. Jordan, chairman of the department of hygiene and bacteriology, with the assistance of Dr. Jacob C. Geiger, who has been appointed assistant professor of epidemiology for two years in that department. This work will be in co-operation with the U. S. Public Health Service.

—It is reported that the Cook County grand jury has voted a true bill naming William H. H. Miller, director of the Illinois Department of Registration and Education; K. A. Fries and Dr. N. Odeon Bourque on the charge of trafficking in state licenses. Fries is said to be Miller's son-in-law, and was appointed by Miller to a position in the department where he has sole charge of the educational qualifications of applicants and is in entire control of the machinery of the examinations. Dr. Bourque, who is prominently connected with the Chicago Medical School, is reported to have conducted an alleged review course in the "preparation" of candidates for state licensure examinations and to have "guaranteed" delivery of the licenses. A fourth defendant named was William S. Broniarczyk, who, it is reported, was given a pharmacist's license even though he failed in his examination.

—At the last regular meeting of the Physician's Club of Keokuk, Iowa, on motion of Dr. F. M. Fuller, it was decided to authorize the treasurer, Dr. C. A. Dimond, to make a subscription of twenty-five dollars to the permanent Foundation Fund of the Tri-State District Medical Society of Illinois, Iowa and Wisconsin. The subscription was made according to the treasurer, Dr. C. A. Dimond, to "encourage the progress and endowment fund of this remarkable and unique society."

—The Chicago Therapeutic Institute, William S. Sadler, M. D., Director, and Lena K. Sadler, M. D., associate, announces the change of its name to the Chicago Institute of Research and Diagnosis, and the removal on May 1, 1922, of its offices, laboratories and treatment department from 32 North State street to 533 Diversey Parkway, Chicago.

Deaths

ALBERT EUGENE COY, Chicago; University of Michigan, Ann Arbor, 1884; died, April 4, aged 63, from heart disease.

JETHRO DAVIS, Monmouth, Ill.; College of Physi-

cians and Surgeons, Keokuk, Iowa, 1897; died, March 16, aged 55.

FRANK PARIS ELDRIDGE, Greenview, Ill.; Rush Medical College, Chicago, 1878; died, March 5, aged 68.

HARRY W. GOBBLE, Greenfield, Ill.; St. Louis College of Physicians and Surgeons, St. Louis, Mo., 1895; a Fellow A. M. A.; formerly mayor of Greenfield; member of the board of education; was killed, April 2, in an automobile accident, aged 53.

FRANK SEWARD JOHNSON, Chicago; Northwestern University Medical School, 1881; a Fellow A. M. A.; died in Pasadena, Calif., April 23, aged 66. Dr. Johnson was emeritus dean and professor of medicine in the medical department of his alma mater and consulting physician to the Michael Reese and Mercy hospitals. He was a member of the American Climatological Association, and the National Association for the Study and Prevention of Tuberculosis. During the last few years he had resided in Pasadena on account of failing health.

HARRY BROMILOW JOYNSON, Chicago; Baltimore University School of Medicine, 1897; died, March 25, aged 57, from pneumonia.

JOHN OGDEN JOHNSON, Hudson, Ill.; Eclectic Medical Institute, Cincinnati, Ohio, 1887; died, March 6, aged 64, from dropsy.

EUGENE COLBURN KNIGHT, Evanston, Ill.; University of Illinois College of Medicine, Chicago, 1898; a Fellow A. M. A.; died suddenly, April 19, at the Evanston Hospital, from pneumonia, aged 56.

WILLIAM E. J. MICHELET, Chicago; Rush Medical College, Chicago, 1879; a Fellow A. M. A.; died, April 19, aged 64, from streptococcus infection.

MAX REICHMAN, Chicago (licensed, Illinois, 1895); a Fellow A. M. A.; former radiographer, Alexian Brothers' Hospital, Chicago; died, April 5, from carcinoma of the intestines, aged 56.

AMOS P. ROCKEY, Assumption, Ill. (licensed, Illinois, 1878); a Fellow A. M. A.; died, March 16, aged 70.

WILLIAM A. SHRIVER, Virden, Ill.; Eclectic Medical Institute, Cincinnati, 1871; died, March 12, aged 77.

EMANUEL CARMELO SKEMBARE, Oak Park, Ill.; Chicago College of Medicine and Surgery, 1917; a Fellow A. M. A.; died, March 27, aged 27, following an operation for appendicitis.

DANIEL R. VAN REED, Shelbyville, Ill.; Jefferson Medical College, Philadelphia, 1868; veteran of the Civil War; died, March 26, aged 76, following a long illness.

JOHN C. WILLIS, Chicago; Kentucky University Medical Department, Louisville, 1906; formerly of Louisville, Ky.; died, April 12, aged 55, from heart disease and pneumonia.

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THE PROBLEM OF THE MEDICAL PARASITE*

C. E. HUMISTON, M. D.

CHICAGO

The practice of medicine has been recognized for as many thousands of years as the race of man has existed. Attempts to relieve human suffering began with the suffering. The oldest written records in existence show the recognition of the practice of medicine as such.

A wholly satisfactory definition of the practice of medicine is difficult to formulate, but multiplying court decisions are demonstrating that in a legal sense at least, the term "practice of medicine" can be delimited with clearness and precision.

Supreme court decisions have definitely established that the practice of medicine is a general term which includes everything that any system of treating real or imaginary human ailments may lay claim to. It follows that there is no justification for the use of any other name for the healing art. Such of the special forms of treatment as have rightful claim to some degree of success in curing disease, have no rightful claim to any distinctive name.

The charge that the practice of medicine is not an exact science has been permitted to go unchallenged for so long that the statement has come to be generally accepted as true. Medicine is entitled to be called a science, and much of it exact science. The facts of anatomy are fixed and constant. Pathology is almost as constant as anatomy. Chemistry and physics are everywhere regarded as sciences. Bacteriology is as exact as botany, and botany is certainly entitled to rank with the other subdivisions of the great comprehensive science of biology. There is nothing

in human experience that is entitled without reserve to be called exact—not even mathematics.

The fundamentals which underlie the practice of medicine are "exact science," in any reasonable use of that expression. Any system of treating human ailments that is not builded upon such a scientific foundation has no legitimate excuse to exist.

No one yet has been heard to dispute that "the whole is greater than any of its parts." No one will assert that any part of the practice of medicine is greater than medicine as a whole. Since the courts, in effect, declare that the practice of medicine is the whole of the subject of dealing with human ailments, and includes within its scope such parts of any other science as may contribute to its purpose, we have an authorized definition of the practice of medicine which commends itself to the lawyer, to the physician, and to the public. It is good law, and it is good common sense.

More than twenty thinly disguised forms of the practice of medicine are now to be found enjoying the protection of the law. The regulation of the practice of medicine belongs to the states under their "police power," a legal term everywhere well understood but nowhere well defined. It follows that there are as many medical practice acts as there are states.

Most of the states have fairly good medical laws, but through most of them runs a common weakness,—a section containing a list of "exemptions."

Under this heading will be found such medical parasites as have been legalized by indirect means. The problem of the medical parasite is peculiar to our own country. No other political subdivision of the civilized world gives legal sanction to the exploitation of its sick. One searches in vain through the medical laws of the nations of the earth sufficiently advanced to have medical laws, for any parallel to the desecration

*President's address at the 72nd Annual Meeting of the Illinois State Medical Society, at Chicago, May 18, 1922.

of medical law that prevails in our own United States of America. The composite list of the parasites found under the "exemptions" of the various states is a long one—and it is growing. The legislatures of the different states are struggling valiantly to overtake the demand. The task seems well nigh hopeless, still there is, as yet, no sign of giving up the chase.

Laws that grant "limited licenses" to persons of limited qualifications are not laws in the interest of public safety. The "limited" applies only to the qualifications of the holder of the license. There is no limit to the character of the ailments that the "limited" license entitles its holder to attempt to treat. If the "limited license" were limited in the sense that diseases to which the specified limited treatment was unsuited could not be dealt with, some of the danger might be eliminated. As it is, some of the most pernicious of these "limited" practitioners treat in their own limited way, diseases which are necessarily fatal unless treated by methods which by law are denied to the holder of said limited license. The law plainly says that certain methods of treatment are forbidden, but is silent on the vital point of what diseases must not be treated by the limited methods permitted the holder of the limited license. Withholding the proper treatment may cause the death of the patient just as surely as applying the wrong treatment. The limited practitioner not infrequently makes away with his patient by this indirect method. This way of killing people is legalized in many of the states—and Illinois is one of them.

Public safety demands that any treatment should only follow a diagnosis, and the particular ailment having been ascertained, the particular treatment best suited to the condition should be administered under the guidance of a person deemed competent to practice medicine in all its branches, and deemed competent to make a diagnosis. No patient, no part of the public, is safeguarded by permitting persons handicapped by lack of education, and handicapped by the law, to attempt to treat any and every human ailment.

It is beyond the scope of this address to attempt to evaluate the more than twenty varieties of medical parasites whose practice of medicine under some special name is legalized in the various states of the Union. A thorough survey of

this matter is of the utmost importance. One of the great Foundations should, on behalf of the public, undertake this important investigation. These Foundations, some of them, have been active in the field of medical education, and it would not seem officious if one of them should undertake this humane life-saving task. None of the great Foundations is now engaged in any line of research of any greater importance to the human family.

By way of illustration, it may not be amiss to give passing notice to some of the characteristics of a few of these more or less evanescent parasitic appendages to the practice of medicine.

These parasites uniformly agree that they are engaged in the practice of medicine. There is no other explanation to their insistent demand that they be given recognition in the laws governing the practice of medicine. Not all of them are willing to admit this obvious fact to their prospective patients, but they all realize what they are doing, even though they treat the fact as a trade secret.

A second particular in which there is no disagreement among them is their defiant refusal to submit to the equal application of the laws to regulate the vocation in which they are engaged. There are no exceptions in this respect.

A third point on which they most vociferously agree is their unwillingness to comply with the educational prerequisites which the law and good sense say should safeguard the public against incompetence in dealing with human life.

A fourth point of similarity is found in their admission that there are some conditions, generally of a surgical nature, to which their particular form of treatment is not well suited. On this point, however, they are not very vociferous.

A fifth disingenuous characteristic is one which likewise applies to the whole parasite family—they dislike to have their host, the public, object to any of their habits. They resent being disturbed while feeding.

A sample list of "exemptions," taken from the medical practice act of a New England state, Connecticut, may serve as an example, if not as an exception:

1. Persons recommending by advertisement, or otherwise, proprietary remedies sold under trade-marks.

2. Chiropodists.
3. Clairvoyants.
4. Persons who practice—
 - (a) Massage,
 - (b) Swedish movement cure,
 - (c) Sun cure,
 - (d) Mind cure,
 - (e) Magnetic healing,
 - (f) Christian science.
5. Persons who do not prescribe drugs, poisons, medicines, or nostrums.

This small New England state, with its remarkable array of exempted parasites, has nearly fifty towns without a regular physician. It may be said with justice that the people of this state have as many, if not more, decent physicians than they deserve. Any state that gives an absolutely free fling at the health and lives of its citizens to the followers of the mental vagaries of some of the above listed parasites ought to be thankful to have any self-respecting physicians whatever willing to live and work within its borders.

One of the best known of the limited practitioners is the Osteopath. Osteopathy was originated by a physician. Its name stands for a theory of the cause of disease that has not made good. Its adherents know that the name is too narrow to be considered seriously. Osteopathy is, at most, a therapeutic agent. As such, it undoubtedly has value in suitable cases, but as a substitute for the regular practice of medicine it is an absurdity.

The trend of osteopathy is toward scientific medicine, and ultimately to absorption into the regular profession.

Chiropractic may be looked upon as a parasite upon osteopathy. It is of lay origin. The little merit it possesses as a therapeutic agent it owes to its osteopathic origin. The theory of Chiropractic restricts its usefulness to a very limited field. The misleading, untruthful, newspaper propaganda of the chiropractors justifies the public in withholding its confidence from this form of practice.

Clairvoyants are given a safe approach to the public's cash in two states—Maine and Connecticut. This group of persons claim to be endowed with an intuitive sagacity of perception. Comment is unnecessary.

Another form of fractional therapeutics, posing as a substitute for everything, is Christian Science. It exceeds all the other medical para-

sites in a number of particulars. It has a name that, in its application, is wholly devoid of significance. The business of practicing medicine under the guise of religion is not peculiar to this sect, but this particular parasite has overgrown and dwarfed every other of its kind. The founder of this religio-medical business was induced by the Almighty to fix a fee of three hundred dollars as the proper amount to exact of others for showing them how the thing was done. The full name of the "Almighty" consulted on this important matter was "Almighty Dollar." Prayer, as a supplication addressed to GOD can not consistently be called a financial transaction. Business is not properly classed as Divine worship.

The medical profession has no quarrel with any one's religion. The public tolerates almost anything that calls itself religion; however, the public, through its accredited representatives, has declared that the treatment of human ailments by any method whatsoever is a *business* commonly known as the practice of medicine. Christian Science is thus logically looked for in the medical laws, and in about half the states it will be found safely nestled under the protecting wing of the section on exemptions.

Many of the state laws in attempting to define the practice of medicine enumerate a number of specific acts, any one of which constitutes practicing medicine, and if done by an unlicensed person becomes a crime, punishable by fine and imprisonment. Some of the specific acts which many state laws declare to be the practice of medicine are:

1. Opening an office for the treatment of the sick.
 2. Using any letters, or title, in connection with one's name with the intent thereby to imply that he or she is engaged in the art or science of healing.
 3. Engaging for a gratuity, or compensation, to undertake to treat an imaginary ailment of another.
 4. Holding one's self out to the public as being in the business of driving away supposed mental ailments—and so on.
- Guaranteeing to cure incurable disease is unprofessional conduct, for which any physician may have his license to practice revoked, and justly so, for that is obtaining money by immoral, illegal and fraudulent methods. All these crimes, however, become *divine worship* when done under

the guise of *religion*, or when called treating the sick and afflicted by "*prayer*." This form of *devotional exercise* yields financial returns without investment. It is a fine example of something for nothing without any drawback other than now and then an untimely death—due, of course, to no fault of the *religious ceremony* that the patient was paying for, but to the fact that some misguided person or persons interfered with the exercise of a "*religious tenet*" to the extent of thinking that the patient was sick. The lame excuse that one frequently hears, namely, "If this treatment does no good, it can do no harm," is well answered by the supreme court of Ohio. Quoting from a recent decision, "The failure to give the natural and necessary relief called for by the condition of the patient in the shape of some positive affirmative action by way of treatment may be as harmful as the giving of a treatment that is harmful, *per se*. What the patient often needs immediately is helpful treatment and not merely harmless treatment."

Concerning the subject of public health, the court said: "Public health is the very heart of public happiness. The constitutional guarantees of life, liberty, and the pursuit of happiness are of little avail, unless there be clearly implied therefrom the further guarantee of safeguarding the public health, in order that life, liberty and the pursuit of happiness shall be made practical and plenary."

Speaking of pathology and diagnosis, the court said: "But obviously as to those two major essentials of professional equipment, the state should set its standards high, so as abundantly to protect the public from the mistakes of ignorance, however well intentioned, from charlatan-ism, from professional quackery, however well garbed in alluring advertisements, and from all those who would prostitute their profession to a profiteering basis."

As to educational standards: "The need of expert knowledge would seem too obvious to require further argument. It is surely only elementary to say that before one can treat a disease intelligently and efficiently, he must know much about the nature and extent of that disease, the organs and parts affected, and even the cause of that disease. All these things and many more enter into an intelligent, practical and effective treatment."

And once more, discussing the contention of

the Chiropractors that they do not need to know a great deal in order to treat disease efficiently: "As the body politic is sometimes found to be in possession of undesirables foreign to our government and our public welfare that require immediate and drastic deportations to other shores, so the physical body is not infrequently found to be in possession of some foreign growth whose immediate removal is indispensable to the health and life of the patient. To say that such knowledge in no way pertains to the treatment of the Chiropractor is sheerest nonsense, even to a layman."

The supreme court of Illinois, in the decision declaring the medical practice act of 1917 unconstitutional, said: "Where an act does not impose on all persons of like age, sex and condition, the same restrictions in their business or profession, it is the duty of the court to declare the act void. For like reasons, we must hold section 5 of the statute now in question void because it unlawfully and unjustly discriminates against one class of physicians, or those desiring to become physicians. . . ."

The regular profession is so accustomed to being discriminated against that it is likely to overlook the inescapable implication that any medical practice act is void, unless it imposes the same restrictions on all classes of physicians, for surely all classes of physicians are engaged in the same business.

Another significant statement in the same decision is: "We are not prepared to hold that requiring four years' professional education before a chiropractor or osteopath is allowed to practice his profession is unreasonable or unjust."

There is no legitimate excuse for any "exemptions" in any medical practice act. The very object of a medical practice act is to keep the unqualified and the unfit from having dangerous privileges. The fit and qualified are provided for in the law itself. Exemption in favor of any class is clearly unconstitutional.

The regular profession welcomes any new therapeutic agent that possesses value. A large number of our members are engaged in research work exclusively. The treatment of the sick and afflicted by prayer as a "tenet of religion" need not interfere with common sense and understanding. Any person who assumes exclusive charge of cases of illness, maintains an office for the treatment of patients, charges for his or her services, holds himself or herself out to the public as being

able to cure the diseases of others, or engages by any means whatsoever for a fee, gift, or compensation, directly or indirectly to him or her paid, to treat human ailments, is not to be considered as being engaged in religious worship, but in the business of the practice of medicine, and should not be heard to complain at being compelled to comply with the same educational prerequisites which under like conditions are required of others.

There is a perfect solution to the problem of the medical parasite, and that specific remedy is education—education of the parasite. The application of the educational prerequisites of regular medicine to all who aspire to practice the healing art will not interfere with any form of treatment that has merit, but the profiteering parasite would disappear—the whole tribe would vanish in a day.

The education of the *public* is of the highest importance as a permanent safeguard. A law which provides that all candidates for licensure to treat the sick must come armed with reasonable educational qualifications, may, any day, be wiped out by a court decision on some legal technicality. An educated and discriminating public will at once demand a better law.

Something akin to this happened when the law of 1917 was declared void. The parasites who secured the destruction of the law that had stood between them and the public's cash, found themselves face to face with the law of 1899, which provided a penalty of \$100.00 instead of the \$25.00 named in the law of 1917, "Verily, little Peterkin. 'twas a famous victory."

And as if by way of a lesson in patriotism, the supreme court, on Washington's birthday, handed down a decision that the law of 1899 is constitutional and must be obeyed.

The experience of the president of this Society in addressing a large number of mixed audiences in the larger cities of Illinois confirms the belief that the public is anxious to take part in an educational movement such as is here suggested.

This Society should have a lecture bureau on the general plan of university extension work, and perhaps in cooperation with the State University, whereby the members of our profession would be available for lectures and addresses to lay or mixed audiences on topics of common interest to the medical profession and the public. A joint committee from this Society and the

University could safely be trusted to guide this work along safe lines.

If the medical profession does not wish to submerge, it must emerge. Its traditional seclusion must be abandoned. The times demand that the profession come forth to battle with the sinister forces of the medical underworld. The battle is for the health and lives of our fellow men, and is a challenge which in the name of humanity the medical profession can not refuse to accept.

Our call to arms is the human cry of distress. Outstretched to us are now the despairing hands of helpless little children, the tragic victims of ignorance, of superstition, and of the sordid greed of quackery.

The mute appeal of a home in which is only silence where was once the music of childish laughter is more compelling to the true physician than is the bugle call to the soldier at the front. The public may not now appreciate our efforts in its behalf, but if we do our full duty now, sometime, some day, it will.

CHOLECYSTITIS, ITS INFLUENCE ON UPPER ABDOMINAL PATHOLOGY.*

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OMAHA, NEBRASKA.

There seems to be a tendency to look upon a diseased organ as if it led an independent existence, and to ignore the fact that it is only one part of a living body capable of modifying the functions and initiating pathology in its neighbor organs. If the infected organ causes enough suffering and morbidity to make it a nuisance, it is removed or otherwise dealt with in accordance with approved surgical principles. If the patient thinks he can endure his sufferings he is permitted to do so, unless imminent danger of a fatal attack spurs his medical attendant to advise operation. It is thus we have regarded appendicitis; it is thus we regard cholecystitis. Apparently we have lost sight of the fact that an infected intra-abdominal viscus, equally with infected tonsils or teeth, is a potential disseminator of infection.

Interest in the study of the gall bladder and its diseases is usually centered upon the gall bladder itself, as if it were insulated from its fellow organs. The close relationship existing

*Read before The Chicago Medical Society, Mar. 8, 1922.

among the several organs in the right upper abdomen is too often forgotten or ignored. When the gall bladder is drained or removed because of disease, it is done solely to get rid of the distress the pathologic gall bladder is producing; and, as a rule, the more important reason for prompt action; the prevention of more serious disease of the liver, the pancreas, the stomach and the duodenum, is overlooked.

No one dealing frequently with the various intraperitoneal diseases can have failed to note that appendicitis, cholecystitis, hepatitis, pancreatitis, and gastric and duodenal ulcer are comparatively seldom found unassociated with other pathology; infection of two or more of these viscera, simultaneously, occurring so often as to almost establish a rule. The association of these infections occurs too often to be regarded as mere coincidence. The sequence is too constant to be accidental. When one of these organs becomes infected the others are at once endangered.

It is impossible for infection of the appendix to exist without some of the micro-organisms being carried into the portal circulation, and thence to the liver. This great catch basin is usually able to dispose of any moderate number of pathogenic bacteria, at least for a time. But if they are poured into the liver in large numbers and continuously, some are almost sure to escape destruction and to reach the bile capillaries, which carry them into the larger bile ducts and they finally reach the duodenum, where they will do no harm. Some may float up the cystic duct into the gall bladder, and even here, unless decided stagnation is present, they are harmless.

If all could escape into the bile capillaries, cholecystitis would be a rare disease. There would be only an occasional hematogenous infection, due to bacteria in the general circulation being accidentally trapped in the capillaries of the gall bladder wall. If, however, the pathogenic bacteria flood the liver in great numbers, some of them are picked up by the lymphatics and, as has been so convincingly proved by Graham and his coworkers, are carried through the anastomotic loops which connect the lymphatics of the liver with those of the gall bladder. Thus a sufficient number of these micro-organisms, starting from the infected appendix, traveling by the route indicated, finally reach the wall of the gall bladder and there set up a cholecystitis. This is not, primarily, a mere surface catarrh but an

invasion of the submucous and muscular coats, producing immediate leucocytic infiltration and thickening.

Conversely, when infection of the gall bladder wall exists, reinfection of the liver through these same lymphatics, goes on continuously. Bacteria from the liver cause cholecystitis; cholecystitis causes hepatitis, and, as Graham expresses it, a vicious circle is established, and, as long as cholecystitis exists, an interchange of infection is kept up between the gall bladder and the liver. The hepatitis cannot subside because additional infection regularly reaches the liver from the gall bladder. The cholecystitis is in an equally hopeless plight because, though the infection might be self-limited, if not subjected to fresh invasions, new infectious bacteria are arriving continuously from the liver.

This phenomenon explains why cholecystitis is so persistent and is so seldom cured spontaneously. There are, to be sure, rare instances when the infection gradually abates, apparently because the tissues of the gall bladder wall and of the liver gain a tolerance, perhaps due to uncommon powers of resistance, perhaps due to the micro-organisms becoming attenuated and weakened. The fact remains that cholecystitis is a disease characterized by extreme chronicity. When a gall bladder is once definitely infected, its host may reasonably expect many years of discomfort, much suffering, and, in all probability, a considerable shortening of his life's expectancy.

Pancreatitis is generally conceded to be a disease which rarely occurs without being preceded by cholecystitis and gall stones. In my own experience a mild or severe pancreatitis has been so frequently associated with cholecystitis that, when operating upon the diseased gall bladder, the fingers almost instinctively feel for the pancreas. My touch may not have been trained to make the finest tactile distinctions, but, in the last few years, it has seldom happened that palpation of the pancreas has not been rewarded by a distinct impression of increased resistance of that organ. Although sections have not been taken for examination. I am convinced that pancreatitis is almost as frequent a result of cholecystitis as is hepatitis. A recent review of six hundred office records of gall bladder operations confirms me in this opinion. Mild pancreatitis does not necessarily produce noticeable symptoms; it is only when the pathologic changes

are sufficient to interfere with function that we recognize it as pancreatitis.

Deaver's opinion that infection is carried along the lymphatic channels from the gall bladder or the bile passages causing lymphadenitis of the chain of glands along the common duct and in the right free border of the gastro-hepatic omentum, thus giving rise to peri-pancreatic lymphangitis and lymphadenitis, with enlargement and hardening of the adjacent portion of the pancreas itself, gives much food for thought.

Harer, Hargis and Van Meter in *March Surgery, Gynecology and Obstetrics*, reporting some studies on the gall bladder and its function, reach the following conclusion:

"That by means of the lymphatics infections are carried from the gall bladder to the glands at the head of the pancreas, producing a lymphangitis and lymphadenitis and a lymph stasis which later becomes organized and results in chronic pancreatitis."

The heretofore accepted explanation that pancreatitis is caused by a stone becoming lodged in the diverticulum of Vater, or of obstructive swelling of the mucous membrane in the ampulla, thus damming back the contents of the duct of Wirsung and producing back pressure, is weakened by the fact that pancreatitis occurs as frequently where the cholecystitis is mild and when no stones are present as in those rare cases in which a stone is found in a place where it might obstruct. The experiments of Mann prove that the intraductal pressure very seldom can be sufficient to produce pancreatitis by this means.

If Sweet's observations are correct, and they carry the mark of careful study—that chronic pancreatitis does not usually show signs of primary destruction of the secreting cells—obstruction of the duct, as an important cause of pancreatitis, will have to be thrown overboard.

Granted that cholecystitis is able to produce hepatitis *via* the lymphatics, which has been proven, it is equally reasonable to suppose that pancreatitis could be produced by the same means and *via* the same instruments. The lymphatic communication between the gall bladder and the pancreas is as easy as that between the gall bladder and the liver. The hepatic chain of glands and those along the course of the superior pancreaticoduodenal vessels receive afferents alike from the gall bladder and from the head of the

pancreas. If these glands are infiltrated and blocked by pathogenic bacteria reaching them from the gall bladder, it is scarcely conceivable that the pancreas could escape infection. Simple blocking of these lymph vessels is capable of producing edema of the head of the pancreas, whether the pancreas is invaded by micro-organisms or not.

It is stated by good authority that more than five percent. of the people suffer at some time with gastric or duodenal ulcer. Many attempts have been made to explain the cause of their so frequent occurrence. Some of the factors which have been brought forward as etiological agents seem reasonable in accounting for an occasional accidental ulcer, but none of the theories thus far formulated are adequate to account for more than a minority of the causes. Why should they be so frequent in one part of the stomach and so rare at the fundus and along the greater curvature?

There are certain fundamental conditions that can be agreed upon as necessary before these ulcers form, and which might be called the essential elements without which there can be no ulcer. Sippy has formulated this idea so clearly that it may be accepted by all. The etiological elements are two, and Sippy considers that both must be present simultaneously or no ulcer will be formed:

"1. Circumscribed malnutrition or necrosis involving the mucous membrane or walls of the stomach and that part of the duodenum subjected to the action of the gastric juice.

"2. The digestive action of the gastric juice."

Bolton showed that actual necrosis of the gastric cells is not a necessary antecedent to the digestive action of the gastric juice, but that the cells merely be somewhat damaged. Most of us, I believe, can accept Sippy's law, at least all can meet on common ground with regard to his second condition. There can be little question that the digestive action of the gastric juice is an essential factor in the production of gastric and duodenal ulcer.

The first condition, "circumscribed malnutrition or necrosis," or, as Bolton puts it, the damaged gastric cell, seems altogether reasonable as it would remove the inhibition which prevents auto-digestion of the gastric wall. The important question, and the one concerning which

opinions are widely divergent, is the cause of the damage to the wall which fits it for successful digestion by the gastric juice.

There can be no question that blood borne infections or emboli lodging in the arterioles in the gastric or duodenal wall can set up a condition which would make the tissues favorable for the action of the gastric juice. It has always been hard for me to accept this proposition as an explanation for more than an occasional ulcer. Why should 86 per cent. of these emboli lodge at the pylorus or along the lesser curvature? It is true an effort has been made to show that the structure of the arterioles in this region is especially suitable to entrap unwary emboli. But, after all, the arteriole arrangement at the lesser curvature is not so different from that at the greater curvature or at the fundus, at least the emboli would lodge in the arterioles along the greater curvature if they happened to be carried in that direction. Hematogenous infections in the gall bladder wall and in the gastric and duodenal walls unquestionably occur, but it does not seem probable that, even with the elective attributes ascribed to certain bacteria by Rose-now, this mode of infection can account for the very numerous cases of cholecystitis and the many ulcers. In my opinion this is one of the causes that will have to be relegated to a minor etiological role.

A lesion occurring with such great frequency must have its origin in some more or less constantly working factor, and it has seemed to me the lymphatic route is the one that meets all the requirements.

When cholecystitis exists, the hepatic chain of lymphatic glands, the subpyloric group, the retro-pyloric, the coeliac and some others are usually found to be enlarged; and these are the same glands that drain the head of the pancreas, the first portion of the duodenum, the pyloric region and the lesser curvature of the stomach.

Let us suppose the glands that drain an inflamed gall bladder are blocked. As the result of this blocking the lymph channels coming from the gastric and duodenal wall are dammed up. The blocking of these lymph channels, following a well-known law, produces lymphatic edema in the tissues whose lymph drainage is stopped.

This edema may be only slight and temporary; its permanence and intensity will depend on the

completeness of the blocking and on the readiness with which collateral circulation is established. It is highly probable that the edema is often great enough to devitalize or, at least, lower the local nutrition, in some area or areas sufficiently to meet the first of Sippy's requirements. The presence of normal gastric juice at the time of this devitalization or lowering of the nutrition of the tissues fulfills the requirements, and an ulcer is formed.

It is also conceivable, if auto-digestion of the stomach wall is prevented by the alkalization of the tissues due to constant circulation of the blood, as some physiologists state, that the edema may retard the circulation sufficiently to lower the threshold of this inhibition to a point which will allow self-digestion.

It is claimed that sometimes, when obstruction of the lymph current takes place, a reversal in the direction of the lymph flow occurs. According to Edmonds the change in the direction of the lymph current, or the establishment of a collateral circulation, is not usually accomplished until after considerable delay. The circulation is slow in becoming readjusted. The edema, it is probable, is usually present for a considerable time, giving an opportunity for a corresponding amount of damage.

There is still another process by which a lymph borne infection might be a factor in the production of ulcer. If there occurs a reversal of the lymph current it is highly probable that some of the lymph in the vessels leading to the blocked and infected glands would be drawn back into the lymphatic capillaries in the stomach or duodenal wall, and with it some of the infective micro-organisms that had their source in the gall bladder. Here they would produce infection in the wall and have the same effect as a hematogenous infection.

Some one may ask why, if produced in this way, ulcer does not occur in every case of cholecystitis? The lymphadenitis is severe or trivial in different cases. The blocking of the gland may be complete or produce only slight retardation of the lymphatic current. The edema in one case may be dense and in another only slight and transitory. The former would be likely to result in ulcer, the latter would quickly clear up without producing enough cell damage to permit digestive action by the gastric juice.

Much speculation has been indulged in to explain the chronicity of these ulcers. One of the most frequent reasons offered has been that the gastric juice digests the granulations as rapidly as formed. The force of this argument is considerably strengthened by the fact that continued alkalization often results in healing of the ulcer. If lymphatic stasis is a contributing factor to the production of the ulcer, a continuance of the lymphatic stasis will very naturally prevent the ulcer from healing. Reversal of the lymphatic current may not be possible in all cases and efficient collateral circulation may fail to be established. In such a case the edema is permanent. Such a condition may be compared with chronic leg ulcer, except that the stasis is lymphatic instead of venous.

I am compelled to admit that this whole theory is speculative. I have not yet been able to devise a technique for carrying out the experimental work by which the soundness of the theory can be established or its erroneousness shown. It seems logical and fits much more reasonably into the conditions as they are met in actual clinical work than any of the explanations current. It must be remembered that all the many efforts made to account for these ulcers have been equally speculative. None of them have been proven, at least no proof has been offered which accounts for more than a small percentage of the cases.

The lymphatics have not been given the consideration as disseminators of disease to which their importance entitles them. As spreaders of infection and as channels along which cancer cells permeate to distant regions they hold the chief position. Cholecystitis owes its great prevalence to infection borne by the lymphatics. Hepatitis is oftenest caused by lymphatic borne infection. Many are now disposed to consider pancreatitis as due to infection carried from the gall bladder and the liver by the lymphatics. It seems equally probable that the lymphatics are the chief factors in the production of gastric and duodenal ulcers.

The distribution of these ulcers is a striking argument in favor of the hypothesis offered for your consideration. Eighty-six per cent. of the gastric ulcers and practically all of the duodenal ulcers are found in areas whose lymphatics are drained into the chains of glands which drain

the gall bladder and the liver. Only fourteen per cent. of the gastric ulcers are found along the greater curvature, the fundus and the cardia, and this area is drained in the opposite direction. Less than one-sixth of the total area of the stomach furnishes 86 per cent. of the gastric ulcers, and the only apparent reason for this startling fact is that in this area the lymphatic drainage is tributary to the same glands that drain the gall bladder.

If the infected gall bladder is so dangerous to its neighbors, there are some practical deductions which naturally follow. Inasmuch as drainage probably only relieves the superficial mucous membrane and almost never can be expected to remove the infection from the deeper layers of the gall bladder wall, cholecystostomy is only a temporizing measure, and should no longer be seriously considered as a curative procedure. Its employment may, at times, be useful in serious infections with a very weak patient to tide over a crisis till conditions are favorable for a cholecystectomy.

When the cholecystitis is producing serious and distressing symptoms, which the patient does not wish longer to endure, no further argument is needed to induce any surgeon to operate. There is a class of cases, not very severe, the diagnosis not very easy, a little gas after meals; occasionally slight tenderness may be elicited by deep pressure at the tip of the ninth rib. The patient does not consider himself an invalid; feels all right much of the time. In all probability such a case may go on almost indefinitely without the cholecystitis becoming a serious handicap.

In the light of what is known about the serious neighborhood pathology which may be set up by even a mildly infected gall bladder, are we justified in a let-alone attitude? We know now that in all probability as long as the cholecystitis exists it will keep alive a hepatitis, and that, if the hepatitis continues a more and more definite cirrhosis is developing. If this condition goes on long enough the liver pathological process can no longer be stopped by removal of the gall bladder.

If the infected gall bladder is capable of setting up even one-half the serious pathology in the pancreas and in the stomach and the duodenum that I believe it to be, not to advise and

urge cholecystectomy in these cases is falling short of living up to our obligations. I believe that every case of cholecystitis should be treated surgically, promptly, and by removal of the gall bladder.

Our internist friends sometimes twit us with the statement that cholecystectomy often fails to make the patient well. It is too true. Many of these cases are not operated on till other pathology has developed which is too advanced to be relieved or checked, even if the cause of that pathology is tardily removed.

The results of cholecystectomy are satisfactory only when two definite conditions are properly met: 1. The operation must be done before permanent neighborhood pathology has been established; and 2. The operation must be done in such a manner that no disabling adhesions are left. The first indication is met best when the operation is done early, and will reach its highest state of perfection when the making of the diagnosis of cholecystitis will carry with it the obligation of immediate removal of the gall bladder. The second condition necessary to secure a good result, prevention of disabling adhesions, is improving year by year, and consists in gentle handling, perfect control of hemorrhage, leaving no ragged tissue, and closing the wound without drainage when it can be done safely.

MALPRACTICE SUITS AS THEY RELATE TO THE MEDICAL PROFESSION*

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A dictionary definition for malpractice says, "wrongful or negligent practice or action." Therefore a suit for malpractice may be based on acts of omission as well as commission, and a physician may be sued for failing to do something he should have done as well as for doing something he should not have done. Another definition says, "Malpractice is the treatment of a patient by a physician or surgeon in a manner contrary to accepted rules and with injurious results to the patient." Every courageous physician who advances further than the accepted rules permit may lay himself liable to a charge of malpractice.

*Read before the Chicago Medical Society.

Those of us who know the medical profession know that very seldom is there just ground for the charge of malpractice. The physician has every incentive to do the best he can for his patient. Even if his humanitarian instincts did not guide him right, the fact that his living depends on his success in the treatment of his patients would impel him to treat them to the best of his ability.

If there is very seldom a just reason for the bringing of a malpractice suit the question naturally arises as to why so many are brought. In the first place it is definitely known that in a large majority of the malpractice suits the patient was unable to and did not pay for the services rendered by the physician. The reasons why charity patients are more prone to bring malpractice suits are; first, these patients are notoriously careless and indifferent about following the advice and instruction of the medical attendant, and second, they always need the money. They are just as careless about following instructions regarding a fracture as they are about their financial affairs and therefore they are more likely to get a bad result. Because they always need money they are usually willing to sue a physician, or anyone else for that matter, if there is even a faint chance to obtain money.

Young impecunious lawyers are frequently a cause of malpractice suits. The old-established lawyer of good reputation, very seldom appears for the plaintiff in a malpractice suit against a physician. He has acquired a wholesome respect for the medical profession and his observation has taught him that it is very seldom that a medical practitioner is actually guilty of malpractice. But the young lawyer who needs practice and money desperately has not had time to cultivate his powers of observation. Therefore he is very likely to seize with avidity any opportunity to bring a suit, and he does not care if it is a malpractice suit against a physician, just so it is a suit.

There is another source for malpractice suits that I dislike to mention but I have known of a few suits that were brought because of the jealousy and meanness of a rival practitioner of medicine. Of all asinine, stupid ways of getting revenge, the instigating of a malpractice suit is the meanest. If the suit is successful it will probably encourage others, and the star medical

witness for the plaintiff is likely to be the defendant in the next case.

In a large majority of malpractice suits the final decision is against the plaintiff. This is because the higher courts have been favorable to the medical profession. They have recognized that in the practice of medicine so much depends on human judgment, and human judgment is fallible and may err unintentionally and not carelessly. The higher courts for instance have only required such medical knowledge and judgment as is current in the community where the defendant is practicing. In other words the courts know that a practitioner in the wilds of Arkansas does not have the diagnostic and other facilities that a practitioner in Chicago has, and therefore they do not require so much of him. The courts have also held that all that is required of a physician is the exercise of his best judgment, although that judgment may be wrong. In other words if there are two courses open to the physician in the treatment of a patient and in the exercise of his judgment he chooses one, he can not be held guilty of malpractice even if that judgment is found wrong in the light of after events. The higher courts have also held that a bad result, as in a fracture, for instance, is not in itself, evidence of malpractice.

On the other hand, the higher courts were a little hard on surgeons a few years ago. They evidently had the same idea of a surgeon that the public has of an engineer. The public thinks that a locomotive engineer sits, while his engine is in motion, with one hand on the throttle and his eyes focussed on the rails ahead, whereas this is not the case. The engineer has to watch his steam gauge, his water level, his oiler, and several other things, and his eyes are frequently off of the track ahead while his train is in motion. The higher courts formerly held the surgeon responsible for everything that was done to or for the patient while under his care. One court went so far in its decision as to say that the surgeon should be held responsible for *anything* that happened to the patient while under his care. If the hospital was to catch fire and burn down and the patient was burned or lost his life in the fire, the surgeon should be held responsible. Of course the absurdity of this is self evident.

In another case a surgeon and physician were partners. The surgeon operated on a patient

and his partner gave the anesthetic. After the operation was completed the anesthetist started with the patient for her room. Arriving at the elevator shaft he found the elevator at a floor below. He went down stairs to get it and bring it up, and left the patient on the wheeled conveyance in front of the open door to the elevator shaft. Something started the conveyance and it rolled into the elevator shaft with the patient. One court held the surgeon, back in the operating room removing his gown, personally responsible for the accident. They seemed to think that the surgeon could do the operation and attend to every detail while it was going on, whereas this is not true.

In another case a physician in southern Illinois was engaged to care for an obstetrical case. The patient, who had been a trained nurse, stipulated that, if she did not get along well or any complications arose, she wanted a certain professor of obstetrics called from St. Louis. When the time came her labor was tedious and her husband called the professor from St. Louis. He came and took charge of the patient. He directed the first attendant to administer an anesthetic, while he applied forceps and delivered her. She was lacerated, and brought suit against the first attendant. I happened to be a witness in that case and heard the Federal judge instruct the jury that when two physicians were associated on a case each one should be held responsible for the acts of the other. The first attendant, who did not choose his consultant, did not call him, and who only administered the anesthetic, was held by this judge responsible for the acts of the second attendant. Fortunately a higher court took a different view and the final decision was in favor of the defendant.

The proper sterilization of instruments and accessories of the operation, and the counting of sponges and lap pads, for instance, must be trusted to the nurses in the hospital. If the surgeon had to divert his time and attention from the patient to these details during an operation he would not be rendering the patient his best service. The injustice of the ruling by the higher courts is still more apparent when it is known that the patient frequently chooses the hospital where his operation is to be done, and just as frequently chooses a hospital where the surgeon has no voice or influence in choosing the nurses for

the operating room. However, some late decisions have shown that the higher courts have begun to realize that a surgeon should not be held responsible for all the details during an operation, and should not be held responsible for the acts and duties of all the assistants, particularly when he has no voice in the choosing of them, but must take those given him in the particular hospital where the operation is done.

The lower courts or the courts in which the cases of malpractice are first tried frequently give a verdict for the plaintiff. The plaintiff is generally a charity patient, as remarked before, and the physician is usually a man who puts up a good front to the community in which he lives and is always thought to be much wealthier than he really is. This is probably the reason why juries are prone to decide against the defendant. It is not much comfort to the physician that the higher courts finally decide in his favor. His principal damage is experienced at the first trial. When the case is published in the papers the fact that a suit has been brought, influences public opinion against him. I know a number of practitioners of medicine and surgery, who have suffered greatly both in reputation and finances, because a suit was brought against them, although the case was finally decided in their favor in the higher courts.

The initial suit is held in the community in which the defendant lives and where his practice is conducted, and where his patients live, and the people in his community know all about it; while the higher court which usually, finally decides in his favor is held in another city, and the decision is handed down months and years after the initial suit. The people in the community in which the defendant lives have formed their opinion long before the higher court hands down its opinion, and frequently never hear of the final decision in the defendant's favor.

At the time of the initial suit the local newspapers write up the account of the case in large headlines in a prominent place on the front page, but when the final decision is handed down by the Supreme Court in favor of the defendant, it gets about three lines in an obscure corner on an inside page.

On the other hand the malpractice suit has not been a curse to the medical profession entirely devoid of all good. The fear of malpractice suits has brought out many devices for keep-

ing track of the gauze sponges, and lap pads, used in surgical operations, and it has made many physicians use the x-ray and other methods for more accurately diagnosing fractures.

A great many courts have held that the plaintiff's contention must be supported by medical evidence, and the medical evidence must be given by practitioners practicing the same school of medicine as the defendant. For instance, if a regular physician is the defendant they will not accept the evidence of osteopaths. The plaintiff must have evidence from a regular physician. In Peoria there has not been a successful malpractice suit for twenty-five years until recently, although several have been brought, and the reason is that the plaintiff can not get physicians to give evidence against the defendant. The physicians in Peoria are human and have their jealousies and enmities, but they never allow their personal feeling toward a defendant to influence them in going on the stand against him. In this they may be influenced principally by the fact that if one suit is successful more will inevitably follow, and in the next suit one of them will be the defendant. Because of the fact that the defendant receives his worst damage usually in the publicity and trial of the initial suit, particularly if the suit is decided against him, it becomes advisable to defeat the initial suit if the plaintiff does not have a just cause, which is usually the case.

On the other hand, if the courts hold that the plaintiff must have medical evidence given by practitioners of the same medical school as the defendant, before his case can have a standing in court, it would be manifestly unfair to the community, if a plaintiff could not get such medical evidence, simply because medical practitioners were afraid of future suits. Supposing for the sake of argument that a plaintiff did have a just cause it would be manifestly unfair if he could not get his case before the court, because he could not get a doctor to appear in his behalf, the doctors being afraid to appear because of future suits in which they might have to pose as defendant.

You can not blame the physicians for not wanting to appear for the plaintiff, because they know that a defendant may be irreparably damaged, although he may be innocent and the higher courts may decide in his favor, and they know that they may be the innocent defendants in future trials. On the other hand the people

in a community should not be prevented from recourse to the remedy of the courts in a just cause, because of this fear of the physicians.

I have a suggestion to offer. I am aware that fault can be found with it, but it is the best I can think of. Perhaps the discussion will bring out something better. Every medical society has a board of censors and frequently their function is to adjust disputes about questions of ethics as well as to inquire into the qualifications of applicants. If a member of a medical society is subpoenaed by the plaintiff in a suit for malpractice, and feels that the cause is just, and that he is not actuated by spite or malice against the defendant, and is not tempted by a large fee for giving his evidence, or by a desire for notoriety, let him go before the board of censors and present his view of the case. The board of censors can go into the matter with him, and if they are convinced that he is acting honestly, without prejudice, they may give him permission to appear. With their permission he can escape the condemnation of his colleagues and brothers in the profession, who might not be fully informed as to the merits of the case and who might misjudge his motives.

Medical men usually do not want to be unjust to their colleagues and naturally they do not want to lay up trouble for themselves in the future. On the other hand, they want to be good citizens and fair to the community in which they live. The board of censors would not be interested in the suit in any way either as witnesses or defendants (if any member happened to be interested he should temporarily withdraw and have his place filled by the president), and if they decided that the tentative witnesses' motives were good and there was reason to suppose that the plaintiff's contentions were honestly asserted, they could give the witness their sanction for his appearance for the plaintiff. This would remove him from criticism by his colleagues.

Perhaps the suggestion of a member of the Chicago Medical Society, Dr. Alfred C. Croftan, in a communication entitled, "A Court of Decency for Physicians," appearing in the *Journal A. M. A.* for February 25, 1922, would be still better. In order to refresh your memory I trust you will indulge me while I quote two paragraphs from Dr. Croftan's communication:

Among the activities of various medical associ-

ations to stimulate legislative enactments favorable to our interests and to block legislation detrimental to them, one important form of propaganda is being omitted. Medicine, like any other public utility dependent on the good will of the consumer for the franchise regulations that give it life, should have some mechanism to take care of complaints of customers dissatisfied with the service. In every other profession, the law, the ministry, the army and the navy, and in academic and legislative bodies there is what might be called a court of decency to which the layman can appeal for information or enlightenment in regard to acts of any member of these professions that he may consider wrong; a committee that has the power to disbar from membership in these associations on account of numerous offenses, among them so subtle a one as "conduct unbecoming a gentleman."

There is need in our profession of a similar court before which the public can carry complaints for maltreatment, real or imagined, medical or financial, with the assurance that members of our profession who may have offended in their relations with the public, will, if found culpable, become subject to reprimand and censure by this body of their peers, that redress will be offered, a penalty be imposed and, in extreme cases, a license be revoked or disbarment instituted. Such a court could be national, or limited to each state or even to smaller communities. Our boards of censors or committees on ethical relations do not answer this purpose as far as the layman is concerned; they settle disagreements among physicians and are merely a loose league of medical men with a mandate over professional conduct.

I am led to offer these suggestions because of two or three occurrences which have come under my attention in the past few years. I said that no successful malpractice suit had been conducted in Peoria in twenty-five years until recently. The majority of the suits in Peoria have been taken from the jury after the plaintiff's evidence was in, because there was no medical evidence.

I have been a witness in several malpractice suits (always for the defendant except once) and have learned a few things that are probably old to you, but will still bear repetition. If you should be so unfortunate as to find a malpractice suit threatening, be exceedingly careful about what you write to anyone regarding the case. I was a witness in a suit once where the defendant, a surgeon, was accused of having left a gauze sponge in a wound. The attending physician wrote to him about it and told him that the sponge had been removed by himself and another physician. The surgeon answered, supposing he

was writing to a friend, that while he did not think it was probable, it was undoubtedly possible that such had been the case. The attending physician turned on the surgeon and introduced his letters and materially assisted in the prosecution, or, indeed, he sat behind the plaintiff's counsel and prompted the questions.

An interesting example of how a frank letter may be used as a weapon for the plaintiff may be found in a letter written by Dr. Howard Kelly to the *Journal A. M. A.* (March 29, 1913, page 1014). To one interested in malpractice suits, Dr. Kelly's letter will be found to be very enlightening and instructive.

While acting as a witness in the southern part of the state a few years ago I became impressed with the fact that a family physician, acting as witness for the defendant, has more to do with influencing the verdict than some famous expert from a large city. Perhaps this is truer in a small town or city than it is in Chicago. The trial was dragging wearily along and about five o'clock in the evening two doctors, who had been subpoenaed as witnesses for the defendant, said they felt that they must go home, although they had not testified yet. Their clothes were crusted with dried mud, they wore their pants in their boot tops, their faces wore several days' growth of beard, and their hair was unkempt. They looked like anything but reputable practitioners of medicine. However, I had found out that they were good honest doctors. They were begged to stay till the next day, which they did, and testified in a simple, homely way. At the conclusion of the trial the jury consumed just five minutes in bringing a verdict for the defendant, and we found out afterwards that the evidence of the local physicians had a great deal to do with it.

I know of two surgeons in Central Illinois who have practically won several threatened malpractice suits by promptly bringing suit against the patient in the Circuit Court at the first intimation on the part of the patient that he contemplated suit for malpractice. Of course, they always made their bill two hundred dollars or more in order to get the suit in the Circuit Court. The defendants in the suits for the fee did not want to pay the fee, and did not want a judgment to be obtained against them, so they were tempted to claim malpractice as a defense.

Under those circumstances the amount of damages claimed by malpractice as a set-off could not be more than the amount of the fee for which suit was brought. If the surgeon lost his suit all he lost was the amount of his bill.

I have no connection with any insurance company, except as a policy-holder, and am, therefore, entirely disinterested when I urge every physician to carry insurance in some form. If you do not care to insure in a company, be sure and keep your dues paid up in the State Medical Society. I have seen a malpractice suit break a physician's health and darken the remainder of his life in more than one instance. It has been a tragedy in many a man's life. It is not the seemingly prosperous surgeon who gets hit every time, either. The humblest physician in the smallest hamlet can easily be made a defendant in a malpractice suit, if the devil puts the thought in some disgruntled patient's head that easy money can, perhaps, be made. Any physician may be a victim, particularly if he takes care of obstetrical and emergency cases.

Every physician should scrupulously obey the precept contained in Article 4, section 5, of the Principles of Ethics, "The physician should not make damaging insinuations regarding the practice adopted and, indeed, should justify it if consistent with truth and probity," for fear that he should unwittingly be the means of putting the thought of malpractice in a patient's head. It is too true that back of nearly every malpractice suit is the influence of some physician who, either wittingly or unwittingly, has said something that caused the patient to think of malpractice.

Should a defendant ever settle with the plaintiff out of court? I knew of a doctor once who was threatened with a suit and, dreading the publicity, paid the patient \$1,500. This was divided equally between the patient and his lawyer. In six months that same lawyer brought another suit against him for another plaintiff. He fought this second suit and it cost him \$1,500 to fight it, but he won and it discouraged the lawyer and no more suits were brought. No one, to my knowledge, has ever heard of a suit being brought against the large surgical clinics in this country. Evidently they settle out of court. Personally I have always refused to settle for any

large sum, for two reasons: First, because I did not want to encourage any patient or lawyer to bring any suits by allowing them to collect any large sum from me easily. Second, I felt I owed a duty to my colleagues to discourage any such thoughts in the minds of the lawyers and people in the community in which I lived.

I wanted to present the subject of malpractice suits before you tonight for three reasons: First, the expert witness, who came from Chicago to Peoria, in the case referred to a few minutes ago, was comparatively a young man. While talking with him after the trial he said that he had been appearing as an expert witness in personal damage suits and compensation cases, and no one had pointed out to him before that malpractice suits against physicians were in a different class. It occurred to me that, perhaps, some of us, who were older, had been derelict in not instructing the young men as to their duty toward their colleagues in malpractice suits. We must remember that these young men have not been practicing long enough to have the experience of appearing in court as a defendant in a malpractice suit. After that happens to them just once they will need no further instruction. My second reason for appearing before you tonight is the statement which I have heard that the medical profession of Chicago took the ground that it was better for the defendant if reputable men in the profession appeared for the plaintiff.

The medical profession in Peoria does not believe that this view is correct to the extent of courting such opportunities. We have had disreputable men appear for the plaintiff in Peoria, but we have shown them up to the jury so truthfully by their own testimony when they took the witness stand, that they have become very shy and no lawyer can procure them as a witness for the plaintiff any more. If you have been quoted correctly, we wish you would change your views; at least we ask you not to come to Peoria and act in accordance with those views.

I wish to call attention to an editorial by Dr. Geo. Pfahler in the December, 1921, *Journal of Roentgenology*, in which he says that no one can tell whether a lesion has been caused by x-rays or not. By the way, Dr. Pfahler in the same editorial that we should not use the term "x-ray burn." As there is no heat in the x-ray, a lesion

caused by them can not properly be called a burn and he suggests the term radio-dermatitis as being more appropriate. I believe that this suggestion is good.

In conclusion, the medical profession of Peoria does not care, particularly, what views the members of the profession in Chicago hold regarding malpractice suits; we are only mildly interested in what you do to each other, but we do want your members to quit coming to Peoria and adding to the troubles we already have.

DISCUSSION

Mr. Robert Folonie, Attorney for the Illinois State Medical Society, stated that the suggestions made in the paper that charity cases were fruitful causes of malpractice suits was borne out by the records of the Illinois State Medical Society in a period of about ten years during which the speaker had been connected with the membership of the state society. A large number of these cases have arisen from charity cases, and the reasons lie partly in those suggested by the essayist and partly also in the psychology that is very frequently overlooked, namely, if you get any one into a state of mind where they think they can get something for nothing not only will they seek redress of their necessities but a great many things which go beyond their actual requirements. This psychology causes irresponsibility in a large number of people who are accustomed to getting things for nothing, so that they make the most arduous efforts to get something for nothing, whereas their endeavors might be devoted to something worth while to themselves and to the community other than the peculiar endeavors in which they are engaged.

Another thing in charity cases that makes them fruitful sources of malpractice suits lies in the fact of lack of funds. These people, when asked by a practitioner to subject themselves to an x-ray examination, for instance, will do so because it involves a small fee, and the doctor hopes to get money out of them, but the patients themselves know all the time that he will not.

Mr. Folonie cited several cases of malpractice suits along the line indicated in the paper, and described how they were finally disposed of.

He stated that when a case of malpractice is brought to his attention, the first thing he does is to find out, if possible, who is behind it. In the majority of cases it can be put down as a reasonable certainty that some other practitioner is behind the suit, either directly sponsoring it or indirectly by some remarks he has made to the patient, or adverse criticism, by curling his lip or

turning up his nose in the presence of the patient, and saying to the patient, "Why didn't you come to me in the first place?"

Mr. Folonie called attention to the Grievance Committee of the Chicago Medical Society and said this committee serves a valuable purpose in settling differences by advice and counsel after bringing the parties together. If this were not done, the parties concerned might proceed with bitterness on account of misunderstandings.

Dr. C. B. King, Chairman of the Medico-Legal Committee of the Illinois State Medical Society, said that he did not object to a reputable man going on the witness stand and testifying for the plaintiff if he could have a talk with him before he went on. In a number of cases he is quite sure that the doctor who testified for the plaintiff did the defendant more good than the defendant's own witnesses. He cited three or four such cases. The lawyer for the plaintiff many times would make a strong argument before the jury to the effect that he could not get any of the doctors in town to go on the stand before they were trying to cover up each other's mistakes. On the other hand, if a disreputable man goes on the witness stand, he will qualify before the court as an expert witness in almost anything, and sometimes it takes quite a while to break down the evidence of such a man. Two of the worst offenders in Chicago are not appearing as witnesses any more and have not done so for some time.

With reference to x-ray dermatitis, he thinks the term is a misnomer. When there is sloughing away of the gluteal muscles, the lumbar muscles, etc., requiring the cutting away of all injured tissues and skin grafting, it is a more serious condition than a dermatitis. If the plaintiff's attorney is able to get the judge to consent to have the patient exposed to the jury, the burnt area looks horrible to the jury, and in such cases the plaintiff was likely to get a verdict in his favor. These are the most stubborn cases to contend with.

Dr. Emil Ries said he had been in malpractice trials and had been an expert witness on the side of the defense. He said it was very rare to find a lawyer who is as well acquainted with all the intricacies and difficulties of medical and surgical practice as Mr. Folonie is. If any physician has to find a man as well acquainted with the difficulties of these trials as Mr. Folonie, the expense and worry would be worse to him than any judgment that could be obtained against him. If Mr. Folonie is presented with the facts and witnesses, one could be reasonably certain of the outcome of the case. He said a careless word dropped by a practitioner without any malice might be the starting of a useless malpractice suit.

THE SURGICAL TREATMENT OF GASTRIC and DUODENAL ULCER WITH THE END RESULTS OF GASTROENTEROSTOMY*

C. A. STEVENS, M. D.

CHICAGO

Because of the important part played by focal infection in the causation of gastric and duodenal ulcer we may well divide the surgical treatment of this disease into two classes: prophylactic and curative. The first, or prophylactic, would consist of the removal of all such irritating conditions that are now very well recognized, and would consist of the removal of, or care of, diseased teeth, the removal of infected tonsils, the care of infected sinuses, gall bladder drainage for chronic cholecystitis or pancreatitis, appendectomy where that organ is infected, the proper care of such infections of the genito-urinary tract as are amenable to surgical treatment, and last but not least, the loosening of adherent omentum from old hernias, especially umbilical, and post-operative scars, with attempts to prevent their recurrence. We have all seen a patient complaining of stomach symptoms so closely resembling those of a gastric or duodenal ulcer that, only after careful history taking and examination, have we been able to determine the presence of one or more of these extra gastric lesions and also to have seen these same symptoms disappear following the removal of the offending lesion? [Who can say that a non-indurated gastric ulcer did not exist and was followed by prompt healing after the removal of the cause?]

Blackford,¹ in his analysis of 1,000 cases of gastric symptoms, found that but fourteen per cent. had actual gastric or duodenal pathology, as far as he could determine, but thirty-four per cent. showed abdominal extra gastric disease giving reflex stomach disturbances. Of these causes, he found inflammation of the gall bladder to be the most common, but Deaver² insists that the appendix is the chief offender. In a patient with ulcer symptoms, that is still an acute and recognized medical case, these conditions should be sought for with a great deal of diligence. If they are found and treated in connection with medical treatment of the ulcer, a great number will recover permanently and a correspondingly

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lesser number will have to be treated with what I have designated as curative or gastric surgery.

When is curative, or gastric, surgery indicated? Dr. Will Mayo has aptly remarked that "Gastric and duodenal ulcers are surgical cases after nine complete and permanent medical cures have been effected."

First, if the modern teaching, as set forth most strongly at the Mayo clinic, is true; that most, or all, *corcinnomata* of the stomach develop upon the bases of old, healed, or unhealed ulcers, and that twenty per cent. of these ulcers develop cancer later in life, then, as a prophylactic measure, if for no other reason, gastric ulcers should always be surgical. In support of the theory that *chronic irritation* is a cause of carcinoma, Bloodgood,³ in a recent article on carcinoma of the tongue, lays great stress upon chronic irritation as a causative factor in carcinoma of that organ.

Second, no one questions that repeated hemorrhages or perforations call for surgical interference. Mayo, C. H.,⁴ says that their histories show microscopic hemorrhage in twenty per cent. of the ulcer cases that come to operation.

Third, most internists are glad to seek surgical aid after two or three years of unsuccessful medical treatment.

Fourth, pyloric or duodenal stenosis as a sequence of ulcer is likewise best treated by the surgeon.

There probably has been a tendency to draw the line too fine. Every true gastric or duodenal ulcer, because of the danger of hemorrhage or perforation, is a prospective surgical case and should be watched as such. If, under proper medical care, the patient makes a steady improvement and does not tend toward relapse, with a recurrence of symptoms as bad as, or worse than the preceding attacks, I would say that the case should remain medical. However, if, while under such care the symptoms continue to recur or if the *repeated x-ray examinations that should accompany all such treatment*, show a penetrating ulcer with a constant or growing filling defect, he should be turned over to the surgeon before a perforation with a peritonitis has taken place.

Likewise a degree of pyloric stenosis that shows a six-hour residue of a fifth or more of the barium meal on *repeated examination*

should be treated surgically, as should cases of suspected carcinoma. But in no case should the medical treatment cease with the performance of a surgical operation. Following every gastro-enterostomy or other surgical procedure, medical treatment should continue for from six weeks to as many months, or until all symptoms have disappeared. Even then the patient should be given to understand that for the rest of his life he is a cripple who will have to depend upon the crutches of a selected diet.

Curative or gastric surgery proper. The past twenty years has seen the surgery for gastric and duodenal ulcers pass from a purely experimental state to a fairly definite method that is accepted by the majority of the surgeons today. The basis of this surgery is the gastro-enterostomy. In cases of gastric ulcer, in addition to performing a gastro-enterostomy, because of the development of carcinoma and the recurrence of bleeding, the ulcer should, whenever possible, be excised. This should be done with a knife or cautery, the cautery knife being preferred because of the low resistance of cancer cells to heat. Balfour⁵ maintains that any cancer cells within a radius of two centimeters of the cautery knife will be killed.

In the case of small ulcers located well toward the cardiac end of the stomach, that can be removed and the opening closed without distorting the stomach to such an extent as to interfere with its physiological action, the gastro-enterostomy may be dispensed with.

Ulcers on the posterior wall of the stomach may be reached through the gastro-hepatic or gastro-colic ligaments. If it is too firmly adherent to adjacent organs, such as the pancreas, to be reached in this way, they may be treated through an opening in the anterior wall of the stomach, which is closed after the ulcer has been cauterized and sutured.

Very large, indurated ulcers located midway between the cardia and the pylorus are probably best treated by a sleeve resection with an end to end anastomosis and a gastro-enterostomy to the pyloric side of the anastomosis.

In a case of ulcer at the pyloric end of the stomach, after being excised by the cautery knife and sutured, a gastro-enterostomy should always be performed. If the ulcer is very large and very indurated, a pylorectomy or a partial gastrec-

tomy will be necessary. If a pylorotomy is done, a posterior gastro-jejunostomy should be performed, but if a partial gastrectomy is necessary, a long loop anterior gastro-jejunostomy is preferred.

Cases of ulcer of the duodenum, four times as numerous as the gastric ulcers, do better with a simple gastro-enterostomy than do those cases of ulcer of the stomach. Carcinoma of the duodenum is very rare, but because of the danger of late hemorrhage, it is best to remove, or cauterize, the ulcer if possible. It should then be sutured and enfolded and followed by a gastro-enterostomy.

Multiple ulcers are not common. Mayo, C. H.,⁴ reports 203 cases of gastric and duodenal ulcers present in a series of 6,000 ulcer operations, while only 28 cases of multiple gastric ulcers were found in a series of 638 operations. These multiple ulcer cases must be treated by a gastro-enterostomy with excision, a pylorotomy or subtotal gastrectomy according to location and conditions found at the time of operation.

This seems to be the accepted method of the greater number of gastro-intestinal surgeons. In many cases the location of the ulcer or the unusual amount of adhesion found will be such that one will have to be content with a gastro-enterostomy alone. Again, the poor physical condition of the patient to resist surgical shock may be such that this is all that is justifiable to do.

If the patient is *in extremis*, a jejunostomy may be done first. The abdomen can be opened under a local anesthetic and a catheter sutured into the first loop of the jejunum. Through this the patient can be fed until he has regained sufficient strength to undergo the greater operation that is necessary. This may require several weeks, during which time the patient frequently gains many pounds, and strength in proportion.

Pyloric Exclusion. In the pyloric and duodenal type of ulcer, it is best not to exclude the pylorus any more than is necessary to excise the ulcer and close the wound effectively. One need not fear, however, complete exclusion, if a pylorotomy or partial gastrectomy is necessary to remove a very large indurated ulcer.

The end results. End results will depend to a great extent upon the operator. If one does only a gastro-enterostomy, he can not look for good results in more than fifty per cent. of his cases,

and if unskilled in this kind of work his operative mortality will be high. As his operative technique and his judgment of what to do improve, his results will improve as to permanent cures and his primary operative fatalities will decrease. The Mayo Clinic,³ Deaver,² Moynihan,⁶ Patterson,⁷ Crille,⁸ and others of like ability report operative fatalities of from one to two per cent. in duodenal, and from three to four per cent. in gastric ulcers and complete freedom from all ulcer symptoms in, from seventy to ninety per cent. of their recoveries.

About ten per cent. fail to show any improvement, or recur within a short time. The old ulcer symptoms with pain and distress or gastro-jejunal or jejunal ulcer develops. Erdmann⁹ says that these gastro-jejunal and jejunal ulcers occur in about two per cent. of the post operative cases. Moynihan⁶ quotes poor results as due to:

1. Performing a gastro-enterostomy where there is no ulcer.
2. Overlooking, hence failing to remove, chronic extra gastric lesions.
3. Incomplete treatment of the ulcer.
4. Defects in technique.

It is quite evident that a gastro-enterostomy performed for stomach symptoms that accompany a pulmonary tuberculosis or a pernicious anemia can only do the patient harm. Likewise, even though the ulcer is present, if the cause is not removed, as a chronic gall bladder or chronic appendix, only temporary relief may be expected. So the ulcer that is not resected or burned out with a cautery knife may bleed, may resist healing for a long time, or may even fail to heal at all. The use of non-absorbable sutures or too great crushing with the clamps is the probable cause of gastro-jejunal ulcers.

Vicious Circle. Moynihan, in doing a gastro-enterostomy, to avoid a vicious circle, turned the distal end of his jejunal loop to the right; the Mayos, to avoid the same result, turned it to the left. Each claims his method to be the proper one, which it was in his hands, for a vicious circle is not dependent upon which way the food leaves the stomach, but on whether or not there is a free, unobstructed passage. A vicious circle is an obstruction usually in the distal loop of the jejunum. Too short, or too long a loop, producing a kinking or a retraction of the anastomosis

into the lesser peritoneal cavity, caused by an insecure fastening of the stomach to the opening in the mesocolon, are usually the cause.

The life expectancy of patients following operation for gastric and duodenal ulcers. This is of special interest to life insurance companies as well as to the surgeon and his patient. The Actuarial Society of North America studied 2,431 cases, operated on at the Mayo clinic between the year 1906 and 1915. All but 108 of these patients were traced.

Gastric ulcers, 521 cases. Operative mortality, 4.5 per cent.

Traced—average time 3.6 years; 88 died of all causes.

General population same age, sex, and time, 32 died.

Duodenal ulcers, 1,684 cases. Operative mortality, 2 per cent.

Traced—average time, 3.4 years; 85 died of all causes.

General population, same age, sex, and time, 93 died.

Total, 2,205 cases. Operative mortality, 47, 3.5 years. Deaths all causes, 173.

General population, 125 died.

An increase of 38 per cent. over the general death rate for the general population of like age, sex, and time.

CONCLUSIONS

1. Except where repeated hemorrhages or acute perforations occur, all acute ulcers are best treated medically for a reasonable length of time. The most reliable statistics would point to a cure of about *eighty* per cent. of these cases. Such prophylactic surgery as is necessary to remove possible causative factors should be done during this time.

2. Gastric and duodenal ulcers, with repeated hemorrhages, acute perforations, pyloric stenosis with retention or which have resisted medical treatment beyond a reasonable length of time, are best treated by a gastro-enterostomy with an excision of the ulcer.

3. The internist and surgeon working in harmony should be able to cure about ninety-six to ninety-seven per cent. of all gastric and duodenal ulcer cases with a fatality of less than one per cent. Not a bad prognosis for this type of patient.

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THE ASSOCIATED PATHOLOGY OF APPENDICITIS*

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CHICAGO

In attempting to discuss the associated pathology of appendicitis, we have to deal not only with those abdominal organs in the immediate vicinity of the appendix, but with the whole of the abdomen, pelvis and many distant structures which are in close relationship with the abnormal conditions of the appendix.

Volumes have been written about appendicitis in all its phases, its etiology, pathology, symptomatology and treatment, but this paper is intended to deal only with its associated pathology in an attempt to group together into one picture all those conditions and all the organs whose disturbed functioning together make up the foreground and background of the composite picture of appendicitis.

Likewise, no attempt is made to describe the pathology of the body after death from appendicitis, but rather to present the whole figure of the living organism, suffering from that condition of abnormality known as acute or chronic appendicitis.

The field to be covered in this report is undoubtedly greater in the case of chronic appendicitis than in the more acute form, as the system has gone through a greater degree of adjustment, more changes have taken place secondarily to the original pathology and more far-reaching effects have been attained. However, a very great num-

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ber of pathological changes may have taken place both in the appendix itself and in other causative or associated conditions before the first symptoms are noticed, or the first acute attack occurs.

It is a common experience to have a patient complain of all sorts of vague disturbances, of anemia, "run-down" condition, digestive upsets, headaches, loss of appetite and of strength, and all sorts of symptoms which apparently involve the whole of the body organism, but which in the end may prove to be clearly the manifestations of an infected appendix, and its associated pathology. In fact, the symptoms of the secondary pathology may be the most insistent and the first to be recognized.

It can never be considered sufficient in these days to deal with a single condition alone, as an isolated disease,—and no true picture of existing conditions can be obtained without investigating and obtaining a knowledge of the status of the whole physical organism in connection with the particular pathological organism under consideration.

Probably there is no field among the acute surgical conditions of the abdomen in which there is a more extensive or greater variety of associated pathological manifestations than in that of appendicitis. In discussing it it may be clearest and most concise to take up the various conditions in the order of their proximity as well as relative importance.

Various pathological conditions of the cecum and intestines, including

- Cecal stasis
- Cecal dilatation
- Constipation
- Chronic colitis
- Gastric and duodenal ulcers
- Gall bladder infections and stones
- Kidney pathology:
 - Pyelitis
 - Pyelo-nephritis
 - Perinephritic abscesses
 - Nephritis
- Ureteral infections and adhesions
- Bladder—extension of inflammation and adhesions
- Pelvis:
 - Salpingitis
 - Tubo-ovarian abscesses
 - Pelvic peritonitis
 - Malpositions and hypoplasia uteri
 - Cystic ovaries
- Focal infections:
 - Teeth and tonsils
 - The appendix as a focus of infection for remote structures
 - Rheumatoid arthritis and synovitis
- Neurasthenias
- Cardiac pathology

There are various theories as to the connection

between appendicitis, cecal dilatation, cecal stasis and colitis. One is that the inflammatory reaction in the appendix causes a reflex spasm of the cecum with a consequent collection of feces and secondary dilatation. This in turn leads to colonic irritation, acute or usually chronic colitis and possibly reflex gastric symptoms,—nausea, vomiting, pylorospasm, etc. Another is that constipation, resulting from any one of numberless causes, leads to cecal stasis, favors bacterial growth and so invades the appendiceal walls, the resistance of which has already been lowered by the toxemia.

A chronic colitis often exists in connection with a chronic appendicitis and may even be unrecognized until discovered at operation. On the other hand, the symptoms may overshadow those of the appendix, so that the underlying factor may go undiagnosed for a long period of time.

Kinks of the bowel, due to inflammatory adhesions, dragging down of the bowel into malpositions, and pain from pull on mesentery and omentum.

Various diseases, such as typhoid, intestinal parasites, tuberculosis of the intestines, ulcers, even malignancy may be suspected and treated without any marked indication of trouble in the appendix. It is probably rare in any abdominal condition that at least the possibility of appendicitis does not occur to the physician, and it may also be true that some needless operations may be performed for the removal of that much suspected and highly unpopular organ, but the chances are that there are many cases in which a guilty appendix is unsuspected, goes free, to one in which it is innocently blamed. Probably the responsibility is rarely placed upon the appendix, that that organ cannot be justly convicted.

Gastric and Duodenal Pathology. Not only is the diagnosis often difficult between chronic appendicitis and gastric or duodenal ulcer, but occasionally the two conditions are associated together in one pathological and clinical entity. Whether the causative factor is the same in both cases, the two pathologic conditions then being a part of the general infection, or whether the primary focus lies in the chronic appendix and extends thence to the mucosa of the stomach or duodenum, is not a question we can settle with any definite statement. The probabilities only can be calculated. These conditions may have

existed together for some time, only one being diagnosed, the other being discovered at operation.

A chronic appendicitis with its accompanying constipation, usually causes reflex gastric symptoms, also a lessened motility of the stomach and a tendency to hypersecretion and hyperchlorhydria. This may or may not finally give rise to a true ulcer of the mucosa.

Ulcers of the cecum, as a result of infection, may extend into and involve the appendix, but these are of rare occurrence and are really secondary to another pathological condition.

The pelvis in women is perhaps the most fertile field of all for the production of appendiceal associated pathology. Here we have a whole train of conditions, which seem to go hand-in-hand with appendiceal involvement and which are so commonly found together that a differential diagnosis is often difficult, especially in cases of long-standing chronic conditions.

Of these, the most common and therefore clinically most important, are the tubo-ovarian infections ranging from the simple inflammation, without pus formation, of the tube to the abscess of the loose cellular tissue and broad ligament, resulting in the so-called pus-tubes, ovarian abscess, pelvic peritonitis with its resultant masses of extensive adhesions, misplaced and adherent fundus, varicosities of the broad ligaments and a long train of pathology to broaden out our picture.

As to whether tubal infections are primary or secondary to the appendiceal involvement is often a question which is difficult of decision if indeed it can be decided at all. Certainly the situation justifies a strong argument for the examination or exploration of the pelvic in all cases of appendicitis in women, especially when chronic, and equally so for a routine removal of the appendix in gynecological operations, those cases, of course, being excluded in which the presence of pus prevents any handling of tissues not absolutely necessary.

Sterility has been found in a number of cases to follow the formation of adhesions from an early appendicitis with extension of the inflammation to the tubes and ovaries. Graves and Ochsner believe that exudate from an acute appendix may gravitate into the pelvis and form extensive adhesions there without leaving any great trace, microscopically, on the appendix it-

self or its surrounding structures. The question of sterility makes appendicitis in female children a factor much to be reckoned with, from the standpoint of the clinician, and in relation to the future welfare of the individual.

Appendicitis in children may often be unrecognized at the time but later diagnosed from the history of occasional attacks of pain, nausea, vomiting, etc. There is probably in these cases only a low grade infection, not enough to cause an acute attack but still enough to infect the tubes and cause adhesions, particularly if Graves' theory is true, as to the gravitation of the exudate into the pelvis.

This is particularly likely to occur since in children, that is during the pre-adolescent age, the appendix usually lies very low in the pelvis and may easily be in direct contact with ovary or tube.

Cystic ovaries have been laid at the door of early appendicitis as the inflammatory exudate is supposed to cause a thickening of the corpus allbuginea, with a consequent retention of the follicles and the periodic formation of the retention cysts.

It is not uncommon to find in young girls, adhesions in the pelvis, binding down the uterus in a position of retroversion or sometimes retrocession with ante flexion. Often, too, in these cases, there is delayed development of the internal genitalia so that the uterus remains infantile in type, leading to dysmenorrhea, often termed essential or idiopathic, and secondarily also to sterility.

The so-called appendiceal type of dysmenorrhea is quite frequent among the severe dysmenorrheas of young girls, and this form really consists of an acute exacerbation of a chronic appendicitis, occurring monthly because of the pelvic congestion at that time, this congestion extending by virtue of its pelvic position to the appendix. These are the cases of menstruation, accompanied by severe, colicky pains, usually more marked on the right side, nausea and vomiting and occasionally a low grade temperature.

Gall Bladder. The frequent association of chronic appendicitis and gall bladder disease is very common, although the exact connection is not known. Probably certain of the etiological factors of each count for causative agents in the other also. Many cases operated on for appendicitis alone and with no history of stones or

even infection of the gall bladder often show at operation a truly pathological organ, often one full of stones. On the other hand, numerous operations performed for gall bladder disease and with no special history indicative of an appendiceal involvement, show a kinked, congested or otherwise pathologic appendix.

It is probable that absence of the normal bile content in the intestines may cause an inhibition of the normal resistance to bacterial infection, so that infections of various types are free to gain access to tissues of already weakened vitality. This is particularly true in cases of general visceroptosis. The downward tendency of all the abdominal organs with the resultant pull on mesentery and omentum and frequent kinking of various structures, leads to impaired circulation and much lowering of resistance. With the resulting tendency to constipation, there is considerable absorption of toxic substances and a secondary toxemia or auto-intoxication. This frequently involves the appendix in inflammatory conditions.

Kidney. Kidney involvement is a very frequent and important part of associated pathology of the appendix. It is probably here that the extension of inflammation takes place by way of the lymphatics, although in some cases of high retrocecal appendices, involvement may be by direct extension. The appendix has been found adherent by its tip to the lower pole of the kidney. A perinephritis infection is then most common, later a pyelonephritis or the infection may travel up the ducts and invade the whole of the kidney tissue.

Sometimes a ruptured appendix becomes walled off from abdominal extension, but burrows into and between the muscles of the wall, simulating a psoas abscess or other deep-seated infection of the musculature.

Acute or chronic nephritis may occur in connection with appendicitis as a result of the general toxemia of the system. Occasionally the appendix, especially if abscessed, may infect the ureter, become adherent to it or even perforate into its lumen. These cases, of course, involve the right kidney while the systemic toxemia affects both.

An inflammatory appendix, which lies low in the pelvis may become adherent to the bladder and cause various symptoms of urinary disturbance, cystitis, or rupture into the bladder wall.

Finally there is the remote pathology; the great field of focal infections in which the appendix may itself be considered the primary focus of infection with all sorts of far-reaching effects in distant structures, or its pathology may be part of a long train of consequences arising from the disturbed functioning and bacterial infection of some distant body structure.

Teeth and tonsils are, of course, the culprits usually first mentioned wherever the term focal infection is heard and certainly many cases of appendicitis, especially of the chronic type, are associated with infections of the teeth, gums and alveolar process or with cryptic infected tonsils. The association here has been too much discussed to need repetition now, and only a passing mention need be made.

In the appendix itself, viewed in the light of a possible source of infection to the whole body, we have as great a field, though a less intimate knowledge, owing to the lesser accessibility of an abdominal organ for inspection. Many cases of gall bladder disease are considered as due to a chronic appendicitis, also all kinds of intestinal pathology, pyelitis very frequently, pancreatitis less often, anemias, neuroses, etc.

Neurasthenia is frequent as a result of the absorption of toxins from the infected appendix and its accompanying intestinal intoxication as well as from the various symptoms of its associated ailments. Some attempts have been made to show a definite microscopic pathology of brain cells accompanying a chronic appendicitis, but whether or not this may be true, there is at least the pathological syndrome of various neuroses, known generally as neurasthenia.

Cardiac symptoms may occur as a result of the toxins being distributed through the blood stream and the extra demands made upon the heart muscle by a poisoned organism. As a rule, in chronic appendicitis these heart conditions are functional but they may become organic and permanent damage may result if there is sufficient absorption of toxins and if the focus of infection remains long enough to overcome the resistance of the myocardium.

Synovitis and arthritis occasionally occur as a part of the pathological picture, arthritis probably being the more common of the two conditions and clearing up quite readily, after removal of the offending organ.

SUMMARY

In conclusion we may note several outstanding facts:

1. The large field of associate pathology and the probabilities of associate disease in neighboring organs and pelvis.

2. The far-reaching effects of appendiceal disease, when viewed as a focus of infection.

3. The wisdom of hunting for an abnormal appendix in all cases of chronic, especially if obscure, abdominal pathology.

4. The further wisdom of early removal of the appendix, before the pathology has become widely extensive.

30 North Michigan.

PRACTICAL PERIMETRY*

HARRY S. GRADLE, M. D.

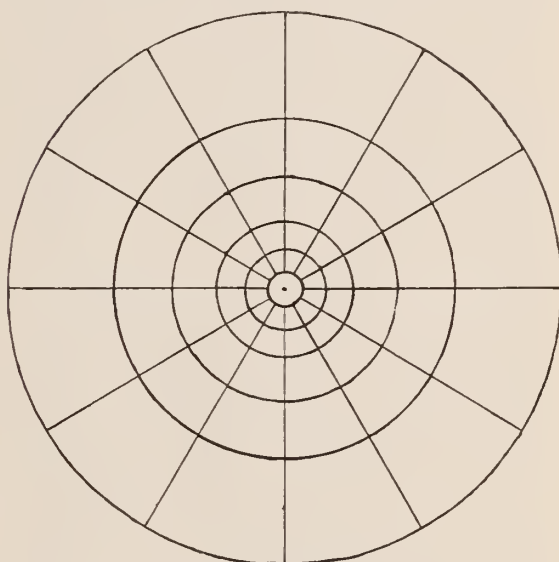
CHICAGO

The arc perimeter is no longer regarded as an instrument of great precision by the ophthalmologist who desires accurate knowledge of the visual fields. The knell of this instrument was sounded with the publication of Bjerrum's Tangent screen perimeter and its grave was deepened by Peter's Campimeter, so that today the perimeter, that formerly was in daily usage by the scientific ophthalmologist, is accumulating dust together with the many other instruments that have been replaced by newer methods of greater accuracy. At first, these new instruments were essentially laboratory affairs, too clumsy and yet too delicate for routine office or clinical use. But improvements have crept in with time so that today accurate scientific perimetry may be carried on in the average ophthalmological consultation room and requires but little more space than the old arc perimeter. It is not the intent of this paper to endeavor to present any radically new ideas or apparatus, but merely to show how tangent screen perimetry, both peripheric and central, can be carried on in the small space at the disposal of the average practicing ophthalmologist.

PERIPHERIC FORM AND COLOR FIELD
EXAMINATION

The original Bjerrum Screen was intended for use at two meters from the patient and at

that distance was necessarily of a size that precluded its use in any but large and well-equipped clinics. But the advantages of that screen can in the main be retained by reducing the working distance between the patient and the screen, thus reducing the size of the screen. The working distance for daily routine use may be cut to 50 cm., which, of course, reduces the length of the radii on the screen. For the past five years I have been using a modification of the Bjerrum Screen that has proven most satisfactory. An expanse of the dark-room wall, some six and a half feet square is painted a dull, dead black. A paint known as Ripolin, imported from Holland, gives the necessary dead surface without reflection. Upon this is painted with ivory oil paint in fine line, the necessary markings of the tangential screen:



Angle of 10 degrees—Radius of	6.25 cm.
Angle of 20 degrees—Radius of	14.28 cm.
Angle of 30 degrees—Radius of	25.00 cm.
Angle of 40 degrees—Radius of	40.00 cm.
Angle of 50 degrees—Radius of	62.50 cm.
Angle of 60 degrees—Radius of	100.00 cm.
Angle of 70 degrees—Radius of	175.00 cm.

the absolute center, the ten degree concentric and concentrics every ten degrees to the periphery, and meridians every fifteen degrees which run from the ten degree concentric to the periphery. (Fig. 1.) After the oil paint has dried thoroughly, willow charcoal was dusted over the individual lines, dulling the shine and reflection, but still permitting the markings to be visible to the operator. The patient is seated on a stool, with his eye exactly 50 cm. from the center of the screen, which is marked with a 5 mm. round

*Read at 71st Annual Meeting of the Illinois State Medical Society, at Springfield, May 18, 1921.

white spot. (A rapid method of establishing the distance of the patient from the screen is to have the handle upon which the target is carried exactly 50 cm. long.) Standing on the floor and extending over the patient's head and slightly behind the stool, is a gas pipe frame work in the form of an arch which carries five lights. The lights are of the daylight nitrogen type and carry reflectors directed toward the screen, thus supplying a uniform and constant source of light, the variances of which (due to differences in the current and wear of the filaments and to discoloration of the glass) are so slight as to be absolutely negligible. The target is in the form of a blackened cube of brass on the end of a slender 50 cm. long rod. The target that is used the most is 10mm. in diameter and is covered with Heidelberg paper, a different color on each side of the cube (white-red, blue-green). The paper is more satisfactory than enameled colors, which cannot be made in true color and which reflect too much glare. At the other end of the rod is a similar cube, only 5 mm. in size. In order to avoid attracting undue attention, the operator's hand and arm had best be covered with a black sleeve.

The use of the instrument is simple and rapid. The patient is seated on the stool, with one eye covered with a black patch and with the illuminating arc just far enough behind him so that no direct light enters his eye. The distance between the patient and screen is quickly proven by means of the handle of the target carrier. The patient is instructed to watch the fixation point which is the exact center of the screen, while the operator stands at the side of the screen in such a manner that his black-covered hand may carry the target on the end of the carrier over the entire half of the screen nearest him and at the same time he can watch the eye of the patient in order to see that central fixation is maintained. The patient is further instructed to signify as rapidly as possible any motion that his eye may perceive in the periphery of his field of vision. The target is then held so that the white-covered surface is turned toward the patient and slowly brought in from the periphery toward the center along one of the meridians. Short oscillatory motion should be given to the target in addition to the slow forward motion. As soon as the patient signifies perception of the moving object, the concentric is announced and is noted upon

the visual field chart of a standard type by the nurse or attendant, who stands behind the patient. The process is then repeated upon succeeding meridians until half of the field has been covered. The operator then steps behind the patient to the other side of the screen and continues the process until the entire form field has been taken and charted.

Taking the color field is slightly more difficult and tedious. The patient is now instructed to maintain the central fixation, but to announce the color of the target as soon as the perception thereof is reasonably certain. The operator assumes the same position as for the form field, but starts the target from about the 45 to 50 degree concentric. The target follows any given meridian and any one of the three colors may be used, a change in color being effected merely by rotating the target carrier between the fingers and thus presenting a different face to the patient. The motion now is no longer oscillatory, but is merely a steady slow advance toward the center of the screen. The eye of the patient must be watched carefully as there is an almost irresistible desire to fix the target and bring the color into the line of central vision. As soon as the patient announces the color, the operator announces the concentric, both facts being entered upon the chart in colored pencil by the nurse. The target is then carried to the next meridian, but another color is presented and the procedure carried on as before. By varying the meridian under examination and the color presented, the patient is kept unaware of what color to expect and thus does not anticipate the actual perception of the color. With a patient of merely average intelligence, the entire procedure is carried out in a very few minutes, actually less time being required than to obtain similar data with an arc perimeter.

The original Bjerrum Tangent Screen was intended for use at two meters with targets of two millimeters in size and upwards. Later the same author advocated a smaller screen for use at one meter, but even this is too large for the average practicing ophthalmologist and the space at his disposal. True it is that, the larger screen has certain decided advantages in the more accurate delineation of the visual field, and isolated scotomata lying therein, but it is decidedly cumbersome and unhandy. Furthermore, with the rapid decrease in visual acuity, as the target leaves

the central field of accurate vision, the accurate outlining of a scotoma loses in intensity with a working screen distance of greater than seventy-five centimeters. This is particularly true of central field work.

Unless a screen is held in a rigid frame as was suggested by Duane rather than in the form of a loose curtain, there is apt to be a certain amount of flapping which is certain to distract the attention of the patient from the more serious work at hand. This is, of course, overcome by having the screen painted on a solid wall, as described above. If the screen markings are carried to the fixation point, inside of the ten degree concentric, there is such a confusion of markings that the attention of the patient is bound to be distracted. Consequently it is advisable to have no screen marking inside of the ten degree concentric, even though this precludes the possibility of using the screen for the accurate delineation of central scotomata. The wall upon which the screen is painted must be of a dead black or, as Ferree has suggested, a dead gray hue. Any reflection from the wall is sufficient to cause circles of diffusion that may be sufficient in intensity to vitiate results, apart from the rapid tiring of the patient by the glare. The markings of the screen must be sufficiently distinct to be seen at a glance by the operator, but still must be dead enough not to attract the attention of the patient. Ivory black oil paint, even though applied as a hair-line, must be dusted with charcoal in order to eliminate the reflective qualities of the pigment.

The illumination must be constant in order to give the same comparative value. As the available daylight light in Chicago is somewhat of an uncertain quantity, not to mention quality, the above-described scheme of illumination was resorted to. The lamps used are 50 watt daylight nitrogen bulbs, which give a very fair approximation of late afternoon daylight and cause but little distortion of color values. With such lamps, brown appears as other than its true color, but brown plays no role in our visual fields taken for clinical purposes. Blue, green and red appear normal. The reflectors add greatly to the uniform distribution of the light over the screen and the combination of such reflector with the daylight nitrogen bulb gives an illumination that is not dependent upon external influences and does not vary from day to day or from year to

year. This uniformity allows of a comparison of visual fields taken at intervals under varying conditions, thus permitting slight changes to be detected readily and without fear that such changes may be due to variations in conditions under which the field was measured.

For rapidity of work, which is one of the essentials of practical perimetry, the above described target has proven most satisfactory. It does not lie quite as flat against the screen as does a disc target, but the difference in elevation is so slight that it is negligible and is more than compensated for by the gain in time. For peripheral field work, the larger target of 10 mm. in size has proven the most satisfactory. It is practically impossible, even with a large target to outline an isolated scotoma in the periphery accurately and it is essentially for such scotomata that the smaller size of targets have proven so useful. Furthermore a difference in the form field of as much as ten degrees in the same patient can be brought out by the use of different sized targets. Inasmuch as the endeavor is to obtain the maximum peripheral perception of the patient in question, this can best be brought out by the largest target. The same holds true for color perception and even with the largest target. It is difficult enough to obtain an accurate color field unless the patient be of unusual intelligence. In view of these observations, the use of targets smaller than ten millimeters has been reserved for central fields or for special cases.

EXAMINATION OF CENTRAL FORM AND COLOR FIELDS

By this is meant the field of vision that lies within the twenty degree concentric, but does not include accurate delineation of the Blind Spot which forms a separate chapter. The first practical instrument for rapid examination of the central tangential field was Peter's Campimeter, but this has been superseded by the equally rapid but far more accurate Stereo-Campimeter of Lloyd. This is so well known that a description of the instrument is not necessary, although some of the essential details may be mentioned. Binocular single vision is one of the requirements of the instrument; but if this is absent, the Stereo-Campimeter may be used as a single eye instrument where it fills the role of the Peter's instrument. Heterophoria is not a deterrent, as this

condition is taken care of by the inserted prisms, an understanding of which is necessary for the accurate results that the instrument can yield. If there be a large central scotoma of both eyes or an equivalent condition, central fixation can be obtained having the patient place the forefinger on the center of fixation and use the muscle sense for fixation. A good uniform lighting of the screen is essential and here as well as with the wall-screen, artificial illumination was resorted to. In use the campimeter stands on a desk with the patient seated before it and the instrument inclined on its own axis to form an angle of about sixty degrees with the vertical. On top of the desk is an ordinary, flexible arm lamp with a fifty watt daylight nitrogen bulb. The arm is so bent that it extends over the top of the instrument and the screen is uniformly flooded with light from an acute angle, thus eliminating reflection into the eyes of the patient and at the same time avoiding the direct incidence of rays into the patient's eyes. This method insures of a uniform illumination at all times and under all conditions.

Before proceeding to the examination of the central field, it is necessary to assure of the binocular stereoscopic central fixation by the patient, unless there be some physical reason why such fixation is impossible. After comprehension of the necessity of such fixation, it is advisable to explain to the patient the procedure about to be undertaken in order to obtain as complete cooperation as possible. The examination should be attempted first with the smallest target provided, in white, and later in colors. If a central scotoma is found to be present, the target should be brought in from the periphery until the outlines of the scotoma can be delineated on the chart that accompanies the instrument. But if the scotoma is excentric, it is preferable to start the target at the center and work outward until the margin of the scotoma is arrived at. The peripheric margins of the scotoma should be outlined by moving the target in from the periphery until the border of the scotoma is reached. It is not advisable to pass the target through the scotoma and record the marginal values thus arrived at for such a method will give not only a false record of the size, but will also tend to displace the area in question.

The main meridians should be tested with the smallest white target with the distinct under-

standing on the part of the patient that not only must disappearance of the target be looked for, but any alteration in intensity or saturation of the color of the target must be noted. An absolute scotoma will cause the target to disappear, whereas a relative scotoma will produce an effect of decreased color saturation only. This is just as important as complete disappearance and demands more careful further investigation. Should no abnormality appear upon searching the central field with the white target, the same procedure must be repeated with the essential colors—green, blue, red. Of these three the green is most apt to show an early disturbance.

EXAMINATION OF THE BLIND SPOT

Careful delineation of the Blind Spot is of vital importance in the diagnosis of certain conditions, but this painstaking examination is not required in every case. A rough estimation of the approximate size of the Blind Spot may be made on the wall-screen or with the Stereo-Campimeter, and such estimation is sufficient to determine whether further and more careful examination is necessary. But the accurate measure of the Blind Spot cannot be made on either of these instruments. In many cases, it is sufficient to know that the Blind Spot is enlarged and knowledge of the shape and size of the enlargement is not essential; but, on the other hand, finer points of diagnosis can be made only from the accurate delineation of the shape and size of the pathological Blind Spot.

For routine clinical use, the Lloyd Stereo-Campimeter offers the most accurate rapid means of measuring the Blind Spot. The smallest white target should be used and it should be brought from the periphery toward the area in question, entering about eight points of the circumference. This will give a sufficient knowledge of the size to determine whether further investigation is necessary. The use of the colored targets is not requisite and may lead to false conclusions for the Blind Spot is surrounded by a color blind area of from one to three degrees in width.

For careful study of the Blind Spot, the Magnet Scotometer, described some six years ago, is the most satisfactory instrument. This is used at a sixty centimeter distance from the patient and the total space required is only that of an ordinary deal kitchen table. At first it was essentially a laboratory instrument, but continued

use has led to the conviction that this instrument has a definite clinical place. It requires some space and considerable time, but the knowledge gained thereby is indispensable. The description of the instrument and its use have been published. There remains to say but a word regarding the illumination. Daylight nitrogen bulbs are used to advantage here also, but the arch frame used for the wall-screen is not good because of the intense reflection from the white celluloid surface of the scotometer. Reading lamps, so turned as to shield the eyes of the patient from glare are placed in such a position that the incipient rays form acute angle with the plane of the instrument. This provides a constant uniform illumination without variation and without discomfort to either patient or operator.

DISCUSSION

Dr. George F. Suker, Chicago: You have heard an excellent discussion of the various perimetry methods by Dr. Gradle. In order to enhance the discussion—I do not intend to discuss the paper as such—I will present you these eighteen typical basic fields around which all others center; in other words, these are eighteen unit fields.

Perimetry itself is not of much value when it comes to lesions limited to the choroid and retina only. It is mainly useful in lesions of the optic nerve chiasm and cuneous lobe for the purpose of localization, diagnosis and prognosis.

These charts given here are self explanatory and are typical fields when the optic nerve or chiasm or both are involved; whenever the cuneous lobe is the site of the lesion, the fields are symmetrical and homonymous in every instance fields are not illustrated here.

Dr. Thomas Faith, Chicago: I do not quite feel that many of us are ready to relegate the arc perimeter to the shelf and replace it with newer equipment. Many of us remember when the perimeter used so much by the French was relegated to the shelf and the arc perimeter taken up.

I believe that a new assistant will learn a little quicker with the arc perimeter than with the screen perimeter.

I tried out the Bjerrum screen and discarded it on account of the difficulty of handling it and on account of just what Dr. Gradle said, the immense amount of room it takes up. I kept it in my private office for a while, then put it in the reception room, and finally had to get rid of it because it was such a large and cumbersome thing.

I believe many of the peripheral changes can be recorded just as readily, just as easily, on the arc

perimeter if you use the double arc perimeter and not the single one.

I personally believe it is almost impossible for one person to take a field. There should be some one to help the man taking the field in order to keep close watch on your patient.

I might say that the place where the campimeter seems to be most satisfactory is for outlining the size of the blind area.

Dr. Harry S. Gradle, Chicago (closing): I want

THE SCHICK TEST AND THE CONTROL OF DIPHTHERIA*

RALPH P. PEAIRS, M. D.

BLOOMINGTON, ILL.

It is just one hundred years since Bertonneau of Tours described and gave the name of diphtheria to the disease which we know by that name. Although he gave an accurate account of the disease before the French Academy of Medicine, yet we have reason to believe that it has existed for centuries and that it was considered a virulent disease by the ancient physicians. Aretaeus, a Greek physician of the first century, gave a good description of the disease. There is evidence that the disease was epidemic in Spain at various times during the sixteenth and seventeenth centuries and that it was epidemic in Italy in the seventeenth century. The first appearance of this malady in the United States was in 1659 at Roxbury, Mass. We know that the disease exists at the present in both epidemic and endemic form and that it continues to be one of the most serious of contagious diseases. Long before the real cause was discovered it was known that diphtheria was both a contagious and infectious disease, that it was accompanied by severe constitutional disturbances, that it was frequently followed by serious complications and that the mortality was high. It has been stated that among physicians and nurses, diphtheria has had the highest mortality of the infectious diseases.

You will recall that the organism which we know as the diphtheria bacillus was discovered by Klebs and Loeffler in 1883. In 1890 Behring and Kitasato proved that the blood serum of animals which had been immunized against diph-

Note: Dr. Suker has simple black and white sketches which will be furnished on application.

*Read at the meeting of the McLean County Medical Society, Bloomington, Ill., Nov. 8, 1921.

theria toxins could be used as a preventive of, or a cure for the disease in other animals. Behring successfully tried the serum upon man. He then produced it upon a large scale and in 1894 antitoxin was recognized as a specific treatment for this disease. Physicians who practiced before the introduction of antitoxin must realize in a greater measure the importance of this discovery and know how much the mortality has been lessened. We who have entered the practice of medicine since antitoxin became the routine treatment of diphtheria cannot appreciate to the same extent the wonderful results of this discovery.

Although we know the cause and have a specific treatment for diphtheria, yet it continues to be one of the worst of the contagious diseases and has a high mortality. Statistics show that the deaths from diphtheria still remain fifty per cent. as high as they did before the advent of antitoxin. We have little to fear from an ordinary case of diphtheria which is seen early, correctly diagnosed and treated with sufficient dosage of antitoxin. However, the complications and sequelae of the disease are of frequent occurrence and are often the cause of death. If a case is seen late, as occasionally happens, the intoxication from the disease may be profound and death may ensue even when heroic doses of antitoxin are administered. At the present time the mortality is largely due to the laryngeal form and it is this type of the disease which is so often overlooked. A recent report¹ from the city of Baltimore shows that over 82 per cent. of deaths for diphtheria in that city during the past two years were due to the laryngeal form. A study of the mortality rate in the registration area of the United States shows that the decline in the death rate came chiefly during the first ten years of the period and that it has remained almost stationary during the past ten years. The mortality rate at the present time is about 20. For the past ten years the city of Chicago has average about 7,000 cases annually and statistics show that diphtheria is the leading cause of death of Chicago children between six and ten years. These facts seem to show that diphtheria is not under control to the extent that it should be.

We know that carriers may harbor diphtheria bacilli in the throat for weeks and months.

Carriers are the result of actual cases or are the contacts of actual cases. If we can eliminate the carrier we can materially lessen the number of cases of diphtheria in any community. The importance of making cultures of all children in a room where a child in school is afflicted with the disease is evident. Only in this way can we hope to lessen the number of cases of diphtheria among children of school age. It is not advisable to release from quarantine any case of diphtheria until two negative cultures have been obtained. A similar ruling for the release of contacts would be desirable.

There is one other method by which diphtheria can be materially lessened, and that is by the immunization of susceptible children. We believe that by means of the Schick test people can be classified with reasonable accuracy as susceptible or immune. It was in 1913 that the Schick test was given to the profession. In 1915, Zingher² of New York reported 2,700 tests among children. He³ has recently made a report of 52,000 tests among the school children of New York City. Two years ago the writer decided to try out the Schick test, with the immunizing of susceptible children with toxin-antitoxin, in the Soldiers' Orphans' Home at Normal. Let us look at the condition of affairs as regards the prevalence of diphtheria in that institution during the time this work has been in progress. The disease appeared late in August, 1919, and for a period of five weeks there were fifteen cases. By culturing children and employees we found eight carriers during this time. Again in December, 1919, and for a period of six weeks there were twelve cases and one carrier. About this time the testing of the children by the Schick method was started and toxin-antitoxin given to all showing positive reactions. In July, 1920, it again appeared and during a period of four weeks there were ten cases, all of whom were children who had been admitted since the Schick tests had been done. All new children were tested at this time and the positive cases immunized. In October, 1920, there were four cases during a period of two weeks. In December, 1920, two employees contracted the disease and four carriers were found. One of these was a child who had had the disease

2. Zingher, Abraham: Methods of using diphtheria toxin in the Schick test and of controlling the reaction. *Amer. Jour. Dis. of Children*, 11, 269, April, 1916.

3. Zingher, Abraham: Diphtheria prevention work in the public schools of New York City, *Journal A. M. A.*, 77, 835, September 10, 1921.

1. Hogan, John F.: Laryngeal diphtheria, *Journal A. M. A.*, 77, 662; Sept. 10, 1921.

a year previous and the other three were employees. This makes a total of forty-three cases and thirteen carriers during a period of sixteen months. During the present year we have not had a single case in the institution. All new children are tested and all positives are given three injections of toxin-antitoxin. We have tested 600 children, of whom 266, or 44 per cent., were positive, 334, or 56 per cent., were negative:

		Positive	Negative
Males	354	146	208
Females	246	120	126
	600	266	334

Perusal of the statistics has brought out some interesting facts and our results are in accord with other workers in this field. The youngest child tested was two months old and the reaction was negative. Children of from two to ten years showed the greatest susceptibility. Girls seem to be slightly less immune than boys. A few children who showed positive reactions were immunized and again tested several months later, and showed negative reactions. We have had one case of a girl of thirteen years who developed the disease a few days after the injection of toxin-antitoxin. This is in keeping with the theory that it requires two to three months after treatment before immunity is obtained. There was one case of a boy aged nine years who had three injections of the T-A mixture in January, 1920, and who came down with a mild case of the disease in October, 1920. Attention has been called to the fact that in certain individuals three doses of T-A mixture are not sufficient to confer immunity and additional doses are recommended in such cases. The fact that only one such case has developed among 246 children who have received three injections of T-A shows that the method is of decided value.

In immunizing those who have shown positive reactions, three injections of T-A have been given, one week intervening between the injections. We have now given about 800 of these injections and there have been no alarming symptoms as a result. All of these children have complained somewhat of soreness and there has been considerable induration about the site of the injection. A few have been put to bed for one or two days but nothing serious has resulted in any case, so we feel certain that the procedure is safe. One thing that was noticeable was the fact that the younger children did not show as much

disturbance from the injections as did the older ones and the few infants to whom it was given showed the least reaction. Zingher, in a recent article, has advocated the omission of the Schick test in children of 2-6 years and advises that all children of that age be given T-A. Such a recommendation from one of wide experience is worthy of consideration.

CONCLUSIONS

The Schick test is a reliable means of determining susceptibility to diphtheria.

The administration of toxin-antitoxin is recommended as a safe and reliable procedure among children and will materially lessen the prevalence of diphtheria.

This procedure is at the present time the most efficient method for the prevention and control of diphtheria.

INTERPRETATION OF GASTRIC SYMPTOMS*

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CHICAGO

When your worthy president invited me to address you and suggested the title referred to, I was at first reluctant to endeavor to enlist your interest in such a vague subject. However, after considering the matter, it occurred to me that whether or not I am able to make this talk worthy of your time, there are, I believe, enough lines of thought opened up to make an interesting discussion possible. Some of the ideas presented will represent actual and acknowledged facts; some will have as a foundation at least presumptive knowledge; and others will be handed out with a more or less perfect coating of probability. No doubt the most difficult field in the domain of diagnosis is that of the abdomen. Some years ago, William Mayo, referred to the fact that the word "abdomen" is derived from a Latin word meaning "to hide." This branch of medicine is difficult because conclusions are arrived at chiefly from the history. It scarcely seems unfair to say that abdominal diagnosis is based 70 per cent. on the history; 20 per cent. on the physical examination and 10 per cent. on the laboratory, including the x-ray.

*Read before the Stock Yards Branch of the Chicago Medical Society, December 9, 1921.

When the term "gastric symptoms" is used, you will please understand that reference is made to disturbances referred by the patient to the epigastrium. In spite of the relative frequency of distress in the upper abdomen, diseases of the stomach are much less common. W. Langdon Brown refers to a statement of Frederick Taylor that the spleen is more sinned against than sinning and adds that this is true, but to a less extent, of the stomach. Admitting that ulcer is frequently encountered and cancer often enough to keep us in constant fear, the only other gastric disease of organic nature worthy of consideration is the occasional case of syphilis. If there is such a disease as chronic gastritis, it surely is uncommon. It would seem that this is so obvious as to require little comment and yet many medical writers prominent in the field of gastric disease are still furnishing more or less lengthy descriptions of this condition. Relfuss apparently believes that the disease exists; and A. Gigon, writing in *Handbuch der Inneren Medizin*, makes the statement, "although chronic gastritis is less chronic than was formerly believed, by no means does it belong to the rare diseases." The pathology of this condition has been described at length. My firm conviction is that the majority if not all of these autopsy findings are the result of *post mortem* decomposition.

Not alone is the epigastrium the barometer of the belly, reflecting evidence of disease of the latter including the pelvis, but it also frequently enough furnishes early symptoms in diseases of the chest and of the central nervous system.

As a preliminary, it will not be amiss to review with extreme brevity the physiology of the gastro-intestinal tract. In our nutrition the only voluntary acts are chewing, the early part of deglutition (until the bolus passes the pharyngo-esophageal junction) and to some extent, defecation. By recalling the nerve supply the reason for this is apparent. Therefore, the activities of almost the entire tract are autonomous, and being unprotected by our volition, are affected by nerve impulses from other organs. When food enters the stomach, it is arranged in layers, each stratum being first lodged on the mucous membrane, to be displaced toward the lumen by the next bolus. Water taken during the meal almost immediately passes by way of the trough along the lesser curvature to and out of the pylorus. The antrum of the stomach undergoes regular peristaltic

waves. The fundus acts merely as a hopper and contracts in a tonic manner, to accommodate itself to the gradually decreasing contents. As demonstrated by Cannon and Carlson, the fundus undergoes actual contraction when the stomach has emptied itself and the tonic contractions at this time give rise to the sensation of hunger. We will have occasion to refer to this again.

It must be thoroughly understood that lesions of the gastro-intestinal tract, except as they involve circular muscles or the peritoneum are painless; and ulcer and cancer (without regard to size or depth) do not cause appreciable distress unless on account of its location or by reflex there is an undue contraction of the involuntary circular muscle fibers, or on the other hand, some involvement of the peritoneum either by inflammation or by traction. A peptic ulcer may, therefore, have for its first symptom a profuse hemorrhage or a perforative peritonitis.

Moynihan said that hyperchlorhydria is simply duodenal ulcer in disguise. Others have considered that the syndrome known as hyperchlorhydria is to be considered merely as evidence of functional stomach trouble. As Brown points out the truth is, as usual, somewhere between the two extremes, and refers to the fact that Craven Moore applies the term "reflex dyspepsia" to this condition. This, therefore, will be the chief burden of my discussion.

Conditions causing reflex dyspepsia are chronic appendix, duodenal ulcer, cholecystitis, ileal kinks, chronic ileo-cecal inflammation, cecal and colonic stagnation, diseases of the female pelvis, mobility of the kidney and diseases of the central nervous system.

Keith gives us a very interesting subdivision of the gastro-intestinal tract. According to this writer, the tract is divided into sections, each one having its own pacemaker. The subdivisions are as follows:

1. Terminates at the upper end of the esophagus.
2. Esophagus ending at the cardiac sphincter.
3. Gastric section terminating at the pylorus.
4. The pacemaker for the duodenum is located just above the entrance of the bile duct.
5. The duodenal jejunal junction is provided with a sphincter and has also a special nerve supply. There are said to be three

peritoneal bands lying to the right of this flexure, each containing a branch of the vagus and also splanchnic fibers, the first set going to this pacemaker and the others to the next two.

6. The ileo-cecal valve.
7. The portion of the transverse colon lying just below the pylorus.
8. Another sphincter is found at the junction of the pelvic colon with the rectum.

Disturbance in any section may cause spasm in the segment just above or in some of the segments higher up. This somewhat lengthy explanation is given with the idea of furnishing some more or less plausible idea of the relationship between some disturbance in the appendix or other abdominal organs, and the symptoms which may be experienced only in the stomach.

The following case referred by Dr. Weller Van Hook illustrates the symptomatology of appendix dyspepsia. Mr. E. G. G., aged 47 years, had stomach trouble as far back as he could remember. He had a pressure, never a real pain, high in the epigastrium, present a large part of the time. He did not know that food had any relationship to it although he does state that in case he has a good night, there are no symptoms before breakfast. Often he is awakened at night with the distress and at times this continues throughout the night. Physical examination was entirely negative; there were no tender spots any place. His Rehfuß chart showed a fasting acidity of 66 but after the Ewald Meal, a gradual ascent of the total acid from 26, 30 minutes after eating, to 117 at the end of two hours at which time there was still 70 Cc. in the stomach. Although no blood was found in the stool, duodenal ulcer seemed to be at least probable. Under ulcer management, he improved remarkably. Eight months later he dropped dead. The autopsy showed as a cause of death marked coronary sclerosis, and as a cause for the dyspepsia, a kinked appendix, adherent to the brim of the pelvis.

In this particular form of reflex dyspepsia the patient may complain of flatulence, and constipation is common. There may be a history early in life of some attacks that may be construed as an acute attack; however, in the writer's experience, this portion of the history is not usually obtained. There may be no tenderness over the cecum as there is no real inflammation—merely an adhesion. To make the diagnosis still more confusing, it is very common to have tenderness over the cecum in stagnation of the colon. It is not essential that the acidity be high as in the case mentioned. It may be low or even absent.

A number of years ago a medical student who complained of rather indefinite gastric symptoms was examined and found negative physically. The test meal showed no free hydrochloric acid and a total acidity of 2. A few months later he developed an attack of acute appendicitis, was operated upon, and he was thereby relieved of his stomach symptoms.

It is generally supposed that gall stones may be entirely latent. This probably is not true, although there may be no pain referable to the gall bladder. Obviously the migration of a calculus always causes colic. However, stones quiescent in the gall bladder may produce symptoms of acid dyspepsia and the gastric chemism may show low, normal, or high acidity. Further we may have more or less frequent attacks of agonizing pain in the epigastrium, unmistakably due to pylorospasm. These attacks are very often diagnosed as "acute gastritis" or "acute indigestion." While the patient is suffering this severe pain, there is usually distinct tenderness in the epigastrium, and after the acute symptoms have subsided it is possible to elicit tenderness beneath the right costal margin, as is true as a rule in gall bladder disease.

The following case illustrates one of gall bladder disease producing dyspepsia: Mrs. J. G., married, aged 23 years, examined December, 1919. She complained chiefly of a pressure beneath the lower end of the sternum coming on shortly after eating, but even present in the morning before breakfast and sometimes throughout the night. Frequently she noticed a pain beneath the right costal margin and she was not certain that it came on after eating but it does come on sometimes when she walks. There was some belching, sometimes accompanied by regurgitation of a small amount of food. This usually has no particular taste although sometimes sour. Examination showed slight tenderness beneath the right costal margin. The fasting stomach showed H Cl 0, T.A. 25. One hour after an Ewald Test Breakfast, the hydrochloric acid was 0 and the total acidity 16, and at the end of an hour and a half, 0 and 12. Operation was not accepted.

In the writer's experience, the sensation of burning in the epigastrium after meals (making one think of hyperchlorhydria) is rather frequently found in the presence of a very low acid. This is interpreted as some remote disease (such as gall bladder, appendix, etc.), producing disturbance in the stomach, not severe enough to cause actual pain but perhaps only a burning sensation and at the same time, the same re-

flex from the distance produces a diminished acidity. Some years ago when gastric analyses were made less frequently, it was quite common to have a patient given alkali for relief of his symptoms of hyperchlorhydria without benefit. Then when we would make the gastric examination, we would find achylia.

Pains in the transverse colon are often very confusing. You will recall that this flexure is immediately below the stomach and it is sometimes impossible (from the description of the type of pain) to determine the exact location. An extremely important point is that colonic pain may occur any time and frequently occurs before breakfast but it is extremely rare to have a gastric discomfort just before or shortly after arising. Not long ago the writer was awakened at 2 A. M. by a colicky pain in the epigastrium, which apparently was due to pylorospasm. A teaspoonful of soda was taken without relief. The following morning the trouble was found to be distinctly in the colon.

It was formerly thought that the pain of duodenal ulcer was caused by the food passing over the eroded area just beyond the pylorus. We have learned by means of the x-ray that in this condition the stomach empties very rapidly shortly after eating and that at the time the pain occurs from one to two or more hours afterwards, the stomach is emptying very slowly. At this time, there is seen to be a spasm in the pylorus, which undoubtedly accounts for the pain. We also know that at this particular phase of digestion there is a high acidity. I will not enter into any argument as to whether or not this highly acid chyme passing over the ulcer may not reflexly produce a spasm in the stomach. The only point I wish to make is that the pain is due to contraction of the pyloric end of the stomach.

Some years ago a dispensary patient presented himself with a history of having had for some weeks, pain in the epigastrium coming on chiefly about 2 A. M. The man was about 45 years of age and in spite of a somewhat low acidity of the stomach, duodenal ulcer seemed to be the probable diagnosis and this was apparently verified by the presence of a very marked Weber Test on the stools. This case was seen before the days of gastric fluoroscopy and the mistake made here would not be made today. Laparotomy disclosed the presence on the less curva-

ture adherent to the liver of a carcinoma somewhat larger than a silver dollar. The interpretation is that this carcinoma, not being near the cardia or the pylorus, did not cause irregular or undue contraction and therefore was painless until it became adherent to the liver. The statement was made during the early part of this discussion that the fundus contracts during the fasting stage. We can readily see, therefore, that when this part of the stomach contracted, it pulled upon the adhesion and caused this marked distress. Not long ago in the County Hospital, a patient complained of pain in the epigastrium several hours after eating and the x-ray disclosed a very distinct Haudeck niche on the lesser curvature. Inasmuch as the position was not that of the duodenal ulcer is seemed that we were justified in concluding that this ulcer was adherent to the surrounding structures. At operation there was found an adhesion band running from the lesion behind the stomach to the posterior abdominal wall.

Epigastric hernia is not an infrequent cause of symptoms in the upper part of the abdomen. In the case of Wm. McM., aged 40, who entered Wesley Memorial Hospital, in April, 1913, the symptoms had been present five years and came on three months after a crushing injury to the trunk. He complained of pain in the region of the stomach, of a dull aching character, coming on soon after eating and lasting about two or three hours, not present every day nor after every meal. This gave him more trouble when he worked. There was vomiting at times. Examination showed a hernia admitting the tip of the small finger in the median line between the ensiform and naval. Stomach contents showed a total acidity of 75. No retention. Operation by Dr. H. M. Richter. Omentum found in sack. Liver, gall bladder, stomach and duodenal normal. Hernia repaired. Symptoms disappeared.

Pernicious anemia may sometimes produce stomach symptoms. Mr. C. H. B., aged 64, referred to me for examination by Dr. Hardon in October, 1907. For three or four years, there had been distension of the abdomen, belching of gas, etc. He vomited more or less frequently, sometimes immediately after eating and at other times more than six hours. He had lost 25 to 30 pounds in the four months preceding the examination. When seen by the writer he had been

advised by some one to have an operation for cancer of the stomach. The stomach contents after an Ewald Test Breakfast showed only a few Cc., with no free hydrochloric acid, no lactic and no Oppler-Boas bacilli. He was given hydrochloric acid and improved a great deal. Three years later, the patient was seen again with Dr. Hardon. This time the appearance was typical for pernicious anemia and the blood examination bore this out. At the time of the first examination, the writer was not having routine blood examinations made, and I have no doubt that had a blood smear been made at that time, changes suggestive of pernicious anemia would have been found.

In closing the writer wishes to emphasize the fact that many of our patients (perhaps the majority) presenting gastric symptoms, are suffering from extra-gastric diseases.
29 E. Madison St.

THE OCCULT DISEASE OF CHILDHOOD.*†

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We will begin today's lecture with case histories which will illustrate the features of the disease without any intimation at first as to the diagnosis.

The patients whose histories are to be given were seen recently in the Medical Service of the Children's Hospital, Philadelphia, and all of them were suffering from the same disease. This will demonstrate very well the protean characteristics of the symptomatology and the reason why the correct diagnosis often is missed at first.

Case 1.—Male, 5 months old. On the day before admission he had had a slight convulsion and was feverish and restless. On the day of admission another convulsion occurred after which, the mother stated, the right arm and leg appeared to be weak. He vomited once and the bowels moved several times. Examination on admission showed slight stupor with rigidity of the neck but no definite evidence of hemiplegia. The spinal fluid was under slightly increased pressure but otherwise was normal, with 4 cells per

cm. The leucocytic count was 19,600. The temperature ranged from 100° to 103.6° F. on the first day and continued an irregular course, tending to a lower range, for two weeks. He left the hospital greatly improved, four weeks after admission.

CASE 2.—Girl, 3½ years old. Two days before admission she became feverish, drowsy and complained of pain in the stomach. There was no vomiting and the bowels were constipated. On admission, physical examination was negative. She ran an irregular temperature for the first five days, varying from 100° to 106.4° F. After ten days of normal temperature, there was a recrudescence for three days, reaching 102° F. The leucocytic count was 28,400. There were no noteworthy symptoms while she was in the hospital and she left on the 27th day, perfectly well.

Case 3.—Girl, 8 years old. For several months she has been subject to attacks of abdominal pain, diarrhea, vomiting and disturbed sleep. Apart from bad teeth, examination on admission was negative. The leucocytic count was 11,000. The temperature never exceeded 100.6° F. After an uneventful course of two weeks she left the hospital greatly improved.

Case 4.—Girl, 6 years old, who gave a history of frequent "colds" and enuresis. Two days before admission she suddenly developed fever, complained of general aching and was unable to stand on account of pain in the hips and feet. There was complete anorexia, with occasional vomiting and constipation. The temperature was 103° F. on admission, but fell to normal on the third day. The leucocytic count was 19,200. Physical examination was negative so far as a cause for fever was concerned. With the cessation of fever, all subjective symptoms disappeared and she was taken from the hospital in eight days, greatly improved.

Case 5.—Boy, 5½ years old. One week before admission he became feverish, complained of chilliness and pain in the right knee and ankle and, later, in the abdomen. Anorexia, occasional vomiting and thirst were the only other symptoms. Examination was negative as to a cause for the pain and fever, which ran an irregular course for eight days, ranging between 98 to 99° and 101 to 103° F. After 26 days he left the hospital, practically well.

Case 6.—Girl, 10 months old. Two weeks before admission she began to vomit after meals, and later had diarrhea. On admission the temperature was 99° F. and ranged between 97 and 99.4° with occasional rises to 100.6° or less. Physical examination was negative except for marked dehydration. Apathy, extreme anorexia, occasional vomiting and slight intestinal indigestion have been the only noteworthy symptoms. The blood-count showed 3,250,000 erythrocytes, 29,300 leucocytes and 57 per cent. hemoglobin (Sahli). In addition to iron citrate by hypodermic injection she has received one transfusion of blood. She is still in the hospital after seven weeks, but probably will recover.

Case 7.—Girl, 7 years old. On the day of admission she became feverish and complained of left-sided ab-

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†From the Medical Service of the Children's Hospital, Philadelphia.

dominal pain and nausea. During the night she vomited several times and passed urine frequently. On admission the temperature was 104.4° F. and ranged between that and 100° F. for six days. The abdomen was tender, with slight rigidity on the left side. On the next day these signs had disappeared and she left the hospital in 18 days, greatly improved.

Case 8.—Girl, 3 years old. Four weeks before admission she had suddenly developed fever, vomited several times, sweat profusely and had a convulsion. Anorexia was complete and she complained of thirst, pain in the right lumbar region and severe dysuria. The convulsion was not repeated, but the other symptoms persisted, in a modified form, until admission. Examination showed slight tenderness in the abdomen and in both lumbar regions, which gradually disappeared in four or five days. The temperature was normal except for several sudden rises to 101° to 104° lasting for two or three days. The leucocytic count was 10,200. After five weeks she left the hospital, improved, but not cured.

COMMENT

It will be noted that fever was the only symptom which was common to all of these cases and that even the fever was a variable factor. Vomiting occurred in seven of the eight cases. In other respects the symptoms varied from those of a meningitis to those of a simple attack of "functional" diarrhea. In every case physical examination failed to reveal the cause of the attack and in every instance the diagnosis depended solely upon the examination of the urine. This showed consistently an acid reaction, more or less albumin and a moderate or excessive number of leucocytes. Upon these findings, in the absence of other cause, was based the diagnosis of pyelitis. In only two of the eight cases had there been any symptomatic evidence of disturbance in the urinary tract.

During the past two decades pyelitis has come to be recognized as one of the usual diseases of childhood. Richard Smith estimates its incidence at about 1 per cent. of all children coming under treatment. In a recent survey of 734 febrile cases treated in the medical wards of the Children's Hospital, Philadelphia, 12 or 1.6 per cent. had pyelitis.

You will find no mention in the older pædiatric literature of the type of pyelitis illustrated by these cases. Even in the four volume "Encyclopedia of the Diseases of Children" published in 1890, the only condition considered is that of pyonephrosis which is described as hydronephrosis with pyelitis superadded, due primarily to mechanical obstruction to the outflow of urine.

The most important cause, apart from congenital defects, seems to have been renal or cystic calculi. It appears therefor that only severe forms of pyelitis were recognized. From what is known of the etiology of pyelitis, there is no reason to believe that it was any less common then than at present. On the contrary it probably was more common, owing to the greater incidence in those days of diarrheal diseases. It seems probable that primary forms masqueraded under the guise of "difficulties in teething" or "gastric fever"—to use some of the favorite diagnoses of the past. These primary forms of pyelitis, as diagnosed today, certainly do not require any mechanical urinary obstruction for their causation.

In the same volume we find the statement by William Hunt that from 50 to 60 per cent. of cases of stone in the bladder occurred in children under 16 years of age, while renal calculi, according to Henry Morris, were found "very commonly" in the children of the poor up to the age of 15. The latter fact was ascribed, among other things, to absence of milk in the diet and to the use of indigestible articles of food. That both renal and vesicle calculi in children are much less common of late years will be attested by surgeons, while "pyonephrosis" is a rare disease. This suggests the possibility that the frequency of lithiasis in the past was dependent in part upon the frequency of pyelitis, which, unrecognized and not treated, furnished the infective nidus without which calculi do not form.

ETIOLOGY

We may consider pyelitis as occurring in two forms: 1. The so-called primary form in which we are chiefly interested and 2. the secondary form which occurs as a complication of other diseases. In both forms the exciting cause is bacterial, the *B. coli*, streptococcus, pneumococcus, *B. lactis aerogenes*, etc.

There are three chief theories as to the manner in which the bacteria reach the kidney—1. ascending infection through the ureter, 2. lymphogenous transmission directly from the bowel and 3. hematogenous infection. To these may be added transmission through the lymphatics of the pelvis or the periureteral lymphatics.

The chief argument in favor of ascending infection through the ureter is the preponderance of cases among girls, almost three to one, and

the ease with which the urethral orifice in girls is contaminated with intestinal bacteria.

As Richard Smith points out, however, this contamination involves other structures than the urethra. He found positive cultures from the vagina in each of 40 babies and young children, beginning from the 6th hour to the 6th day of life—the majority occurring as early as the 18th hour. The lymphatics which drain the vaginal and pelvic organs have a free anastomosis with those of the kidney, and both, of course, empty into the blood stream through the thoracic duct.

Under experimental conditions Helmholz and others have been able to infect the pelvis of the kidney by injecting *B. coli* into the bladder. It was clear, however, that the infection often reached the kidney by way of the periureteral lymphatics and absolute proof was lacking of the entrance of the bacteria into the pelvis solely through the lumen of the ureter. That infection by either route occurs under normal conditions when comparatively few bacteria gain access to the bladder in human beings seems most likely. This is increased by the fact that in his experimental animals Helmholz always found acute inflammatory reaction in the wall of the bladder after the intracystic injections. If pyelitis in children is caused by organisms that gain entrance through the urethra they would be expected to set up first a cystitis, whereas cystitis usually is only a late complication of severe cases.

Helmholz's studies on the bacterial content of the urethra in girls showed that the *B. coli* is not a normal inhabitant over two years of age. Under that age he found the bacillus quite frequently, especially during the course of extra-urinary infections. He ascribed this to the greater difficulty in cleansing and disinfecting the urethral orifice in girl babies. It is also very difficult to insert the catheter cleanly into the orifice without touching the outer edge. By drawing the urine separately into a first and second portion, Helmholz was able to determine that the infection was present in the orifice and the urethra and not in the bladder.

Since Frank drew attention to the lymphatic connection which exists between the colon and the right kidney it seems quite possible for a pyelitis or renal infection to result from direct transmission from the bowel. Its relative importance cannot be stated but at least it fails to explain the discrepancy in sex incidence.

Hematogenous infection can occur in any organ or structure which is well supplied with blood. Pathogenic organisms may pass through an organ without setting up any recognizable disease, as occurs when typhoid bacilli pass through the kidneys. On the other hand, various organisms which are brought to the kidney by the blood stream may set up focal disease in the parenchyma or cortex or may pass through and cause infection below the secreting structures—primarily in the pelvis. For example, Helmholz injected the ear vein in a series of 66 rabbits with different strains of *B. coli*. In 26 of the rabbits, various focal lesions were produced, often multiple. In eleven cases the kidney was involved, chiefly in the form of focal abscesses, while in only two was the pelvis alone affected. Other lesions were produced twenty-six times in various organs, chiefly the gall-bladder and cecum, as compared with eleven renal infections. When pneumococci were combined with *B. coli*, and seven rabbits injected, three showed pyelitis alone, one a cortical renal abscess and two had renal hemorrhage, while lesions of other organs occurred only four times. These results open up the complicated question of symbiosis but are interesting as proving that renal lesions can be produced by a purely hematogenous route. The fact that so many multiple lesions and extra-renal lesions resulted tends to throw some doubt upon hematogenous infection as the principal cause of human pyelitis although Rosenow has shown that certain bacteria apparently possess definite selective action in their localization. For example, streptococci cultured from renal lesions tend to produce a higher percentage of renal infections in experimental animals than do those from other sources. In this light, the special type of infecting organism may be the chief determining factor in the pathogenesis.

In all of Helmholz's cases of experimental pyelitis, the chief inflammatory reaction occurred in the papillæ, whereas the pyelitis which followed intracystic injection involved chiefly the parietal portions. Helmholz believes that, so far, this constitutes the only histological distinction between hematogenous and ascending infections.

The whole subject of the mode of infection is still *sub judice*. Whatever the final decision may be, in part it probably will involve the sexual anatomy since the preponderance of pyelitis

among girls is too great to be explained on any other basis.

PATHOLOGY

In a recent paper before the American Pædiatric Society Helmholtz emphasized the impossibility of determining, *intra-vitam*, the exact site of infection of the urinary tract. In simple uncomplicated cases of pyelitis such as we are illustrating, it has been believed that the lesions at first involved only the structures of the pelvis but in the pathological study of certain specimens from fatal cases of clinical pyelitis Helmholtz was unable to find any histological change in the pelvis itself. This apparently lines up the whole question of pathology with that of the mode of infection, and throws greater stress upon the importance of bacteriologic studies in fatal cases.

The findings of so-called "pyelitis," such as pus cells and positive cultures, therefore indicate merely the presence of a urinary infection. Only with cystoscopic examination, urethral catheterization and x-ray studies can we hope for greater accuracy in determining the exact site of the disease. Fortunately, however, the average case can be diagnosed with reasonable accuracy by comparatively simple methods and we are justified in retaining the clinical designation "pyelitis," if we always bear in mind the possibility of the existence of the other lesions.

SYMPTOMATOLOGY

The cases which have been detailed illustrate practically all of the important symptoms of simple pyelitis. Without examination of the urine accurate diagnosis is impossible. It should be emphasized, however, that whereas pyelitis may be primary without any antecedent disease, intestinal disorders very frequently precede the attack. Adherents of the theory of direct infection from the bowel emphasize this but, as stated, it fails to explain the sex incidence. It seems rather to point to infection from vaginal or urethral contamination. Not rarely an apparent primary attack is but a recrudescence of a chronic infection. There is also reason to believe that reinfection occurs. None of the usual organisms involved confer any lasting immunity and the original avenues of infection certainly may be open.

The secondary form of pyelitis occurs occasionally in the course of one of the other infectious diseases such as typhoid fever or pneu-

monia. In any recrudescence or increase of fever in such diseases the urine should be reexamined.

According to the modern theory of hematogenous infections, we may conceive that diseased tonsils, teeth, sinuses or other localized abscesses can furnish the infective material and quite recently Bumpus and Meisser succeeded in producing renal lesions in 76 per cent. of 82 rabbits which had been injected with streptococci recovered from teeth, tonsils, urine and blood of seven adult patients suffering from pyelitis. Again this seems to point to a selective localization on the part of these streptococci. Since the infective focus in five of the seven patients was in the alveolar processes, the applicability of the results to children is open to question, and the increasing number of instances when the tonsils have been enucleated will enable us soon to judge of the importance of the tonsils. Compared with intestinal disturbance and its consequent local contamination, hematogenous infection from such sources, however, must play an unimportant rôle, and again, it fails to explain the preponderance of cases among girls.

DIAGNOSIS

The diagnosis of pyelitis in a child can be made tentatively in less time than is required to describe it. A drop of urine on a slide without a cover glass is examined with the high power "D" objective. If the number of leucocytes exceeds 10 per field there is great probability of pyelitis being present. Other specimens must be examined before a final diagnosis is made. In true pyelitis the number of leucocytes will increase.

Certain precautions must be taken—1. The urine must have been passed within 2 or 3 hours unless it has been kept at a low temperature—45° or less. In any event, not more than 10 to 12 hours should have elapsed. 2. The urinary meatus in both sexes, and the vaginal orifice in girls, must be free from any signs of inflammation or discharge. 3. The urine must be thoroughly mixed before putting the drop on the slide. For this reason it is better to use uncentrifugated or unsedimented urine.

Under conditions one or two the urine will almost invariably be acid, if no alkali has been given to the child, and usually contains at least a trace of albumin. Small epithelial cells may or may not be abundant. Occasionally we find a

few casts but their constant presence or a large number indicates that we may be dealing with an infection of the kidney itself. An alkaline urine, freshly passed, containing triple phosphates and large epithelial cells suggests a pyelocystitis, since cystitis alone is rare, apart from local causes such as traumatism, vesical growth, etc.

If there is any doubt as to the presence of local irritation which might vitiate the leucocytic count and if, at the same time, the diagnosis is not clear, the child should be catheterized with the precautions to be detailed later, and a bacteriological study should be made. If, on the other hand, the number of leucocytes is below 10 per field, the count should be repeated daily for several days, as a single specimen may, for various reasons, give inconclusive results.

If the count continues to be suspicious, from 5 to 10 cells, and the diagnosis still be in doubt, the child should be catheterized for a bacteriological study of the urine.

In a true case of pyelitis the early samples of urine may show comparatively few cells in a relatively clear urine, but in a short time the cells show a marked increase and the urine will become more or less cloudy. Sooner or later, cultures will prove to be positive but in general practice a culture usually is not necessary for diagnosis and successful treatment. In doubtful cases cultures are essential.

At the Children's Hospital we secure a sample of urine from little girls as follows:¹ Through a piece of adhesive plaster approximately 3 inches square two medium slits are made at right angles just large enough to admit the flange of an ordinary 2 or 3-ounce glass bottle, passing the latter through from the "back" of the plaster to the "adhesive" side. Each corner of the plaster is slit up $1\frac{1}{2}$ to 2 inches to provide for a tight apposition. The plaster can be made to fit the bottle tightly by wrapping an extra piece around the neck and is then applied over the vulva so that the mouth of the bottle lies just at the urinary meatus. By carefully fitting the lower end of the plaster in front of the anus it is possible to avoid fecal contamination even in the presence of diarrhea. The bottle can be held loosely in place by the diaper. The only contraindication to the method is dermatitis or severe irritation of the vulvæ and perineum.

¹This method is not original but we regret that we are unable to recall the name of the originator.

CATHETERIZATION

Two objections are inherent to catheterization in these cases; one of introducing new or mixed infection and the other of obtaining positive cultures from accidental contamination and thus causing error in diagnosis. It is often stated that the introduction of a few bacteria on the catheter is never followed by infection. Although there is much evidence in favor of this contention, in view of the undoubted presence of various pathogenic bacteria from the intestine and the lowered resistance of the child, it certainly seems more rational to take every precaution against infection.

Many types of technique have been employed but none is altogether satisfactory. The important points are to keep the labia separated and to attempt to cleanse only the vestibule and urethral orifice without touching anything else. For cleansing, tincture of green soap and distilled water followed by bichloride of mercury solution (1 to 1000) and distilled water, may be used, or a 2 per cent. solution of lysol may be followed by distilled water. The solutions and water may be applied by douching freely, using a medicine dropper or small syringe. Great care must be taken to insert the catheter cleanly without contact with any other part or object. The urine should be collected in two portions and only the last used for culture. Before withdrawing the catheter the bladder should be washed out with 5 per cent. boracic solution.

The acute case of pyelitis under appropriate treatment usually makes a prompt symptomatic recovery but eradication of the infection often is extremely difficult. When fever and constitutional symptoms persist beyond three or four weeks, in spite of treatment, there is probability that the renal structure is involved. Fatalities are due usually to severe anemia and parenchymatous degeneration of various organs due to prolonged sepsis, to pyemia with secondary abscesses, pneumonia, etc., or to "surgical kidney." Very rarely does the disease prove to be tuberculous or malignant.

There is a large percentage of cases that, in spite of treatment, continues to show pus cells in the urine. In some of these the anemia, anorexia, lack of energy and slight or occasional fever suggest a variety of causes and such cases are often incorrectly diagnosed. In others there

may be little apparent effect upon the child's health. How many of both of these types finally recover and how many drift into more severe and fatal forms of urinary disease or die of anemia, sepsis and exhaustion, is problematical. Some authorities believe that some of the cases of pyelitis or pyelonephritis of adult life had their inception in these attacks of childhood.

TREATMENT

Apart from the removal of possible foci of infection the greatest importance in the treatment of pyelitis attaches to securing free drainage by supplying large amounts of water. When this is refused or vomited, it may be given by the nasal rather than by the stomach tube, as the former is less apt to cause gagging. From 500 to 750 c. c. (16 to 24 ounces) of water should be given to infants daily in addition to other liquids, with larger amounts to older children. By determining the specific gravity of the urine we can make an estimate of the degree of urinary "dilution."

When vomiting is persistent, water should be given by the intraperitoneal method. Case 6 in this series has received 40 intraperitoneal injections, without which, it is fair to say, recovery would have been impossible.

The next measure in importance is to secure complete alkalization of the urine. Citrate of soda is better borne by the stomach than bicarbonate of soda and both can be given safely in larger doses than can the salts of potash. All of these may be used but enough must be given to keep the urine constantly alkaline. In infancy, 4 grams (60 grains) of sodium citrate a day may be the "basic dose," with 1 to 2 grams (15 to 30 grains) of the bicarbonate or potash salt if needed. The largest single dose should be given at night to carry over the period when acidity is highest and intake lowest.

Usually there will be definite improvement in the fever and toxic symptoms after four or five days of the alkaline treatment. Just how it acts is unknown. While improvement lasts, the alkali can be continued, so long as there are no signs of over alkalization such as a positive reaction to thymolphthalein (.5 in 100 c. c. alcohol). If no improvement occurs in five days, we may try hexamethylenamin. This must be given in large dose, at least 1 gram (15 grains) in 24 hours for infants of five or six months. Since this drug will

not be liberated in alkaline urine, all alkali by mouth must be stopped. Acid sodium phosphate or dilute hydrochloric acid may be used to render the urine acid.

With a free supply of water there seems to be little danger of hematuria but the treatment should not be continued steadily for more than six or seven days and may be followed by another course of alkali. This alternation may be continued at weekly intervals and often will be completely successful. When the pyuria persists we may try an autogenous vaccine, although too much should not be expected from it. Recently, the injections of silver salts into the pelvis by urethral catheter have given excellent results. For example, Kretschmer and Helmholtz report complete cures in nine of eleven cases ranging in age from seven months to 10½ years, using a .5 per cent. solution of nitrate of silver.

In all severe chronic cases the secondary anemia indicates the use of iron. Probably the best results are obtained by hypodermic injections of iron citrate. Arsenic should not be used. In the worst types blood transfusions are indicated.

The selection of a suitable diet is of definite value. During the stage of alkalization, the free use of green vegetables and orange juice aids in reducing acidity of the urine and stimulates diuresis. The vegetables may be fed to babies in the form of purées or as vegetable soup. Many green vegetables have the additional advantage of being natural hematinics. The only contraindication to their use is intestinal indigestion or vomiting. If there is difficulty in securing an acid reaction for treatment with hexamethylenamin, vegetables may be stopped and lactic-acid milk, made palatable with sugar or saccharin, may be used as the chief food.

In the mild types, when all treatment fails to clear the urine, a trial should be made of the "fresh air cure." For all the severe types and for the most stubborn mild types expert urological advice should be sought. The importance of persistence in treatment lies in the potentialities for serious or fatal disease which exist when there is definite infection of the urinary tract.

PREVENTION

In the absence of definite knowledge as to the exact modes of infection, prevention must be somewhat empirical. Cleanliness probably is of greatest importance. During attacks of diarrhea

particular care should be taken to cleanse the vulvæ as promptly as possible after soiling has occurred. For this purpose the child should lie on one side, instead of on the back, and all pressure should be made from before backward. After the gross cleansing, sponging may be done with one per cent. lysol solution on a sterile cotton pledget. The free use of water internally in such cases and in the infectious diseases has other advantages than those usually ascribed to it, since polyuria probably means a lessened chance for urinary infection.

SUB-CUTANEOUS RUPTURE OF THE TRACHEA.*

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Sub-cutaneous rupture of the trachea belongs to the realm of the unusual. In gleaning the literature one is impressed by the infrequency of its occurrence. Through the entire world's literature there are but fifty-three cases reported. Some of these were associated with other crushing injuries. To these I wish to add a typical case, with a history as follows:

H. D., a boy aged seven years, while playing the game of horseshoes, stumbled over a tricycle lying on its side. His neck struck the pedal and upon rising his parents noticed a swelling in his neck, which was rapidly increasing, extending to the face and body. The pain was inconsiderable and no external evidence of injury was discernable. At this stage they brought the child to my office. Upon examination I noticed a cushion of air two inches thick extending from the head to the thorax, abdomen and scrotum. Every inspiration increased the emphysema and the boy was becoming cyanotic and gasping for air. Upon percussion I decided that the swelling was mostly air. The absence of pallor convinced me there was very little hemorrhage. I then made four punctures with a small lance through the skin, anteriorly and posteriorly over the thorax. A sizzling sound followed, such as the escape of air causes in a small puncture of an automobile inner tube. The release of external air pressure from the embarrassed heart and lung made a pronounced lessening of the cyanosis and dyspnea. He was taken to the Norwegian-American Hospital and given ether anesthesia. From the history of the first appearance of the swelling in the neck a conclusion was reached that the leak was in the trachea. A curved incision, such as is used for thyroidectomy was made. Dividing the platysma

and retracting the hyoid muscles and thyroid gland, the bulging tracheal membrane presented itself to view. This was slit up and the transverse rent observed between the second and third cartilage completely across, the segments held only by its muscular coat posteriorly. At this time the patient who had had a heavy meal before the accident, vomited, aspirating some of the vomitus through the rent in the trachea. This was cleansed out and the operation proceeded as follows: A through and through chromic catgut suture on a small curved needle embracing the ring above and the ring below the rent was inserted. This almost closed the rent, but it was thought best to insert two lateral sutures to completely close the leak. Breathing immediately became better. Now here is where the treatment differed from the methods of others. The vomitus having been sufficiently long in the stomach was probably sterile and complete closure of the wound was performed. The judgment in this regard was correct for primary union followed. Previous to closure, all air that could be pressed from the surrounding emphysematous regions was allowed to pass out of the incision. In a few days the boy's appearance improved with the absorption of the emphysematous air. A slight temperature, such as is found after all operations, remained for a few days and then subsided. A slight irritation cough lasted two weeks and at this writing the boy has returned to school, none the worse for his experience.

Etiology. In reviewing the causes that lead up to these accidents one is struck with the fact that the damage to the trachea is away out of proportion to what one would expect from so trivial an external blow. The German writers think this is due to the vulnerability of the neck with its extreme mobility surmounted by a top heavy head. In support of this view we may quote Sunderland's case, a boy who from fright threw his head back suddenly, rupturing the trachea. Emphysema followed. He was banded and made a good recovery. Several cases were caused by increasing intratracheal pressure by straining. Andre's case of rupture due to straining during labor in a nineteen-year-old primipara and Latour's, Bredschneider's and Gesheid's cases due to coughing in bronchitis and croup, required no external blow to cause rupture. In this category one must place Leffert's case due to the expulsive efforts caused by the presence of a foreign body in the trachea. It would appear from the foregoing that intratracheal pressure which is increased by holding the breath, through closure of the epiglottis, which we instinctively do when we attempt some

TABULATION OF ALL CASES FOUND IN LITERATURE OF SUB-CUTANEOUS RUPTURE OF THE TRACHEA

Name of Author	Age	Cause	Lesion	Treatment	Result
1. Atlee.....	Boy 4 yrs.	Fall on horseshoe	Rupt. Trach.	.....	Died in a few minutes.
2. Beck.....	Boy	Jolt against post.	Rupt. Trach.	Pall.	Died in a few days.
3. Bennet.....	M.	Crushed between coal-lift and wall.	Fract. of Sternum and Ribs and Rupt. Trach.	Pall.	Died.
4. Berger.....	M.	Crushed by a hoof kick.	Rupt. Trach.	Vene-Section.	Died in one and one-half hours.
5. Bredschneider.	M. 1 $\frac{3}{4}$ yrs.	Cough-Bronchitis.	Rupt. Trach.	Pall.	Died in two days.
6. Corley.....	F. 36 yrs.	Strangulation.	Oblique tear.	Tracheotomy.	Died immediately after operation.
7. Drummond...	F.	Fall on back of chair.	Rupt. Trach.	Pall.	Healed in 14 days.
8. Duncan.....	M. 22 yrs.	Blow with elbow.	Rupt. Trach.	Moist. Ice Compress.	Healed in 14 days.
9. Fleming.....	....	Struck by flying wood beam.	Oblique Rupt.	Ice Bags.	Healed in 6 weeks.
10. Garrard.....	F. 8 yrs.	Fall on school slate.	Rupt. under Cricoid.	.....	Died in a few minutes.
11. Godlee.....	M. 7 yrs.	Run over.	Rupt. rings at Bifurc. Fract. ribs.	.....	Died in a few minutes.
12. Lang.....	M. 28 yrs.	Head forced to chest.	Intussusception.	.....	Died.
13. Lauenstein...	M. 23 yrs.	Kicked by horse.	Rupt. $\frac{1}{2}$ inch above Manu- brium.	Immob. head cold ap- plications Bloodlet- ting.	Healed 1 $\frac{1}{2}$ months.
14. Lefferts.....	3 yrs.	Foreign body in trach. coughing.	Rupt. Trach.	Pall.	Death.
15. Long.....	M. 29 yrs.	Crushed by railroad.	Rupt. Trach. right over sternum.	Tracheotomy.	Healed in 1 month.
16. Lonsdale.....	M. 15 yrs.	Breast pressed against post.	Rupt. right over bifur- cation.	Pall.	Died in 4 days.
17. Neuber.....	....	.....	Rupt. right over bifur- cation.	Pall.	Healed.
18. Norton.....	....	.....	Rupt. Bronchi.	.....	Recovery.
19. Scheidt.....	M. 47 yrs.	Pressed between wagon axle and wall.	Rupt. Trach. Fract. Ster- num and ribs.	.....	Died.
20. Sonderlund...	Boy	Threw head back suddenly from fright.	Rupt. Trach.	Bandaged.	Recovery.
21. Wagner.....	M. 19 yrs.	Head pulled back rapidly while bent forward.	Rupt. over upper sternum.	.....	Recovery in 4 weeks.
22. O'Brien.....	F.	Blow in neck.	Fracture Cricoid Thyroid and Trach. Oblique.	Pall.	Died next day.
23. Clarac.....	M.	Blow against iron Plate	Rupt. Trach. and Cricoid.	Tracheotomy 3rd day.	Died right after.
24. Gabriel.....	M. 14 yrs.	Struck by boat.	Rupt. Trach. Cricoid and Thyroid.	Vene-Section and Cold Applications.	Died in 12 hours.
25. Kenderdine...	M. 16 yrs.	Kicked with horsehoof.	Rupt. Trach. and Thyroid Cart.	Pall.	Died.
26. Noll.....	F.	Strangulation.	Fract. Thyroid and Cricoid.	Tracheotomy.	Recovery.
27. Seydel.....	M.	Kicked with boot.	Fract. Cricoid, Thyroid and Trach. Depressed three rings.	.....	Died.
28. Scharf.....	Adult.	Tried Suicide Explosive in mouth.	Rupt. Trach.	Pall.	Death in few hours.
29. Simeons.....	F. 65 yrs.	Blow with tin spoon.	Fract. Cricoid and Long. Rupt. 6 Trach. rings.	Pall.	Died in 3 hours.
30. Treulich.....	M. 33 yrs.	Horse hit in neck and shak- ing.	Fract. of Trach. Thyroid and Cricoid.	Tracheotomy.	Recovered in 3 $\frac{1}{2}$ Mos.
31. Wagner.....	M. 26 yrs.	Strangulation.	Thyroid, Cricoid and Trach.	.....	Died.
32. Weiss.....	M.	Hanging.	Trach. Long. Cricoid and Thyroid.	Pall.	Died.
33. Briegel.....	M. 26 yrs.	Run over.	Trach. Long. Cricoid and ribs.	Tracheotomy.	Died in 10 hours.

Name of Author	Age	Cause	Lesion	Treatment	Result
34. Latour.....	2½ yrs.	Cough in croup.	Rupt. bet. 1st and 2nd ring.	None allowed.	Died in 6 hours.
35. Geschiedt....	F. 4 yrs.	Cough in croup.	Rupt. bet. 1st and 2nd ring.	Tracheotomy.	Recovery.
36. Zilgien.....	M. 19 yrs.	Fell striking neck on board.	Fract. 1st ring Cricoid and Thyroid.	Ice.	Died in 12 hours.
37. Alcock.....	M. 24 yrs.	Struck by heavy beam in neck.	Rupt. complete 9th and 10th ring Abscess formation.	Ice.	Died in 11 days.
38. Montgomery..	M. 6 yrs.	Struck across front of neck with stick.	Irregular Rupt. 2nd and 3rd rings.	Tracheotomy.	Recovery.
39. Lane.....	M. 14 yrs.	Crushed bet. van and platform.	Rupt. 2 inches from bifur. abscess.	Pall.	Death in 2 days.
40. Park.....	M. 46 yrs.	Struck in neck with a stone.	Rupt. with suppuration.	Incision drained.	Recovery.
41. Ghedini.....	M. 13 yrs.	Struck with a stick.	Fract. 2 CM long. left side.	Incision CHI3 pack.	Recovery.
42. Symonds.....	M.	Neck caught betw. bicycle handle and van.	Long. Rupt. Depressed Fract.	Pall. first. Later operation.	Recovery; some dysp. on exertion.
43. Gelpke.....	M. 27 yrs.	Compression of chest from before backward.	Mut. fract. of ribs—Laceration of Trach. Fract. of Sternum.	Tracheotomy and Canula Sutured.	Recovery.
44. Turner.....	M. 73 yrs.	Struck on back of head by descending elevator; chest against guard rail.	Complete rupt. Trach., Fract. Sternum.	Pall.	Died in 14 days.
45. Osgood.....	M. 42 yrs.	Horse kick on chin.	Rupt. ¼ inch long 2nd and 3rd ring.	Tracheotomy.	Recovery.
46. Andres....	Primipera 19 yrs.	Straining at labor.	Rupt. left side Trach.	Pall.	Recovery.
47. Beyer.....	Young Man	Kick from fellow socker player, while stooped.	Rupt. 2nd and 3rd rings.	Repair and gauze pack.	Recovery.
48. Clayton.....	14 yrs.	Crushed by engine.	Tear back wall of Trach.	Pall.	Death in two days.
49. Schoenberg...	....	.....	Rupt. Trach.	.....	Found at autopsy.
50. Fahr.....	....	Transmission blow.	Sub-cutaneous rent.	Pall.	Recovery.
51. Horhamer....	Young Man	Struck with pole while pole vaulting.	Rupt. Trach.	Repair with gauze pack.	Recovery.
52. Coudray.....	M.	Shell shock.	Rupt. Trach. 3 rings and aneurism of artery in Trach.	Pall. Refused operation for emphysema.	Dysp. and cough—Six months later bulging hernia and aneurism.
53. Zeuch.....	M. 7 yrs.	Struck neck on pedal of tri-cycle in falling.	Rupt. Trach. 2nd and 3rd ring.	Preliminary punctures for emphysema. Complete repair and closure.	Recovery in three weeks.

athletic feat, or when we are falling—is the most important predisposing factor. In this state of distention it requires but a slight blow or jar externally to transmit the shock of the blow to the hollow inflated organ to cause rupture. An analogy to this force is found in the transmitted fractures due to counter stroke (Contre-coup) fracturing the opposite side of the head. Or cases of concussion hemorrhage transmitted from the opposite side of the brain. Or like the transmitted fracture caused by injury to the sacrum causing a fracture of the axis or atlas.

Pathology. The autopsy cases showed that death was due to air and blood in the mediastinum, causing suffocation, although contributing crushing injuries had a bearing upon the mortality.

Statistics as to Treatment. Of twenty-nine

cases treated by the various palliative methods, cold compresses, immobilization, etc., eighteen died and eleven recovered, but some suffered with dyspnea afterward.

Of eleven cases in which tracheotomy was performed, eight recovered.

Two cases were incised for secondary abscess and both recovered.

Three cases were treated by bloodletting, with other palliative measures and two recovered.

Four cases received radical operative treatment and all recovered. Those receiving immediate attention fared best as to absence of subsequent dyspnea.

Twenty cases died within forty-eight hours.

The mortality of all cases in literature is 54 per cent.

Summary. 1. Sub-cutaneous rupture of the

trachea is an accident requiring early recognition and radical treatment to obtain the best end results.

2. A blow over an inflated trachea can cause a serious injury which seems away out of proportion to the force of the causative agent.

3. Puncturing of the emphysematous region is a valuable adjunct to the treatment, relieving dyspnea and cyanosis until radical procedures can be instituted.

4. Complete closure of the wound without a gauze pack may first be tried. If primary union ensues the disfigurement is then no more than is common following thyroidectomy.

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A DARNING JOB ALREADY

All was going merrily at the wedding until the bridegroom was called upon to produce the wedding ring. In vain he felt in his trousers pocket for the missing trifle. Nothing could be found except a hole, through which the ring had evidently fallen into his shoe. What was he to do?

"Take off your shoe," said the parson.

The suspense and silence were painful. The organist, at the parson's bidding, struck up "Voluntary."

The young man, sitting on the altar rails, removed his shoe, the ring was found—also a large hole in the stocking, which led the worthy divine to remark.

"Young man, it is time you were married."

ARMENIA THREATENED WITH BLINDNESS

According to a dispatch from Dr. R. T. Uhls of Kansas City, who is head of the medical department of the Near East Relief, there is an epidemic of trachoma raging throughout Armenia. Examination of 30,000 refugees revealed the fact that 27,000, or 90 per cent, were in the first stages of the disease. If the proportion holds good in all parts of Armenia, Dr. Uhls says, the situation is one of the most serious with which any nation was ever confronted. Only an extensive medical campaign can save the country from becoming a nation of blind.

WHY LOOK?

Mrs. Jenkins, a regular visitor in the doctor's consulting room, started on the long story of her troubles.

*Case shown before the daily clinic at Norwegian-American Hospital.

†Read before the North-West Branch of Chicago Medical Society, Nov. 11, 1921.

The doctor endured it patiently and gave her another bottle. At last she started out, and the doctor was congratulating himself, when she stopped and exclaimed: "Why, doctor, you didn't look to see if my tongue was coated."

"I know it isn't," wearily replied the medical man. "You don't find grass on a race track."

AS WE VALUE OURSELVES

A story is told of a young East Side physician in New York City, who spends much of his time in charitable practice. On one occasion the doctor visited a woman living in a small tenement room with her three children. He made out a prescription and presented her with two dollars, telling her to buy the medicine and use the change for needed food. The next day, on entering the tenement for a second call, he met the ten-year-old daughter of the patient, and inquired of the child how her mother was faring. "Oh, she's well," said the child. "She took that two dollars and got a real doctor."—*Exch.*

A DISTRESSING MOMENT

A preacher of slight physique, but a big man in church affairs, was noted for particular faithfulness in the matter of parish calls. He was making his customary rounds one evening, and rang the doorbell at the residence of one of his church members.

His hostess opened the door for him—seemed to be expecting him, in fact; she even assisted him to enter—forcibly, as it were—yanked by the collar, you know, and with the irate, yet jubilant, exclamation.

"Now I have got you! You will ring my doorbell, will you?"

And across the street a crowd of urchins chuckled wickedly.—*Ex.*

ALCOHOL PROMOTES GROWTH IN TADPOLES

In an article on "The Effect of Ethyl Alcohol on Tadpoles" by Mast and Ibara, in the *American Journal of Physiology* for February, 1922, it is stated that the evidence seems to show conclusively that a weak solution of alcohol cuses an increase in the rate of growth in tadpoles and tends to reduce the rate of mortality. As to how these effects are produced is not clear. The alcohol produced a reduction in activity. This might account for the increase in length of life, but it does not account for the increase in the rate of growth. It would consequently appear to be more reasonable to assume that the alcohol served as food, probably primarily by being directly oxidized in the body, thus furnishing energy and conserving other food material.

THE NEW PRESIDENT

Following the custom of many years, the JOURNAL presents the portrait of our new President, Dr. E. P. Sloan, as a supplement in this issue.



EDWIN P. SLOAN, M. D.
PRESIDENT, ILLINOIS STATE MEDICAL SOCIETY, 1922-1923

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JUNE, 1922

Editorial

THE STATE SOCIETY MEETING

The seventy-second annual meeting of the Illinois State Medical Society adjourned May 18th after one of the most enthusiastic sessions ever held by the organization.

The attendance was 2,100, which was double the attendance of any previous meeting; the large attendance was especially gratifying because of the inclement weather which kept away from the meeting several hundred that would have registered their presence under more favorable weather conditions.

From the scientific standpoint the papers read at this meeting were up to if not better than the usual papers read at previous meetings. Another feature of the program was the clinics that were held each forenoon throughout the session. The clinics were well attended which was ample evidence of the popularity of this feature of the program.

The House of Delegates disposed of a great amount of important business; much constructive business was transacted. The reports of the numerous elected and appointed committees were

perhaps the best that were ever presented to the House of Delegates.

The House of Delegates adopted several resolutions of far-reaching constructive character: many of these carried recommendations that the Illinois delegates to the American Medical Association present the same to the House of Delegates of the A. M. A. and to use every honorable means to secure their adoption in the parent organization. The Illinois delegates followed out instructions of the State Society and every one of said recommendations were adopted by the A. M. A. House of Delegates at St. Louis, May 22 to 26. All the resolutions adopted at the State meeting will appear in the July issue of the JOURNAL. We ask our members not to overlook reading when they appear next month.

Dr. W. H. Gilmore of Mt. Vernon, Illinois, who has served the Society faithfully for many years, saw fit to tender his resignation as secretary and Dr. W. D. Chapman of Silvis, Illinois, was elected to the office of secretary.

Dr. Edward H. Ochsner of Chicago, Illinois, was made president-elect of the Society. Only a few men in our society have contributed as much to the development and guidance and policies and general activities of our Society as have the

new secretary and the president-elect; both will fill their respective positions with credit, both to themselves and to the organization.

We feel that we are speaking the sentiment of the great organization when we extend to the retiring secretary, Dr. W. H. Gilmore, a sincere wish of good health and prosperity in his new environment.

WHY SHOULD THE WHIM OR PREJUDICE OF A WARD BOSS CONTROL THE RIGHT OF THE SKILLFUL PHYSICIAN IN THE PRACTICE OF MEDICINE?

Medicine is a science; unscientific adventures on the part of the ignorant laity are pathetically humorous. Through the centuries men have labored to discover the hows and whys of the ills of the body. Due to medical discoveries, many diseases have become extinct. Many known diseases are under control. Medical progress lessened the death record in the world war to only a fraction of what it has been in previous conflicts.

Looking these accomplishments in the face, it is ridiculous for cobblers, bank presidents, school teachers, stenographers, bookkeepers, street car conductors, plumbers and all the other allied trades and professions and the citizenry at large to presume to tell the doctors how medicine should be practiced. What doctor dare tell a plumber how to lay a gas pipe or a bookkeeper how to find his cash shortage?

At present there is an army of human parasites who are seeking to get on the pay roll of the state or government and who find the shortest and easiest route to accomplish this end is to inaugurate social welfare movements and propaganda intended to create new positions and that will give them supervision of the health welfare of the people.

Medical men spend years in preparing for the practice of medicine, and it is ridiculous to presume that after a man has spent twenty thousand dollars in money and devoted the time up to twenty-eight years of age to prepare himself for the practice of medicine that the knowledge he would acquire in his studies and clinical training would be inferior to some social uplifter's medical education.

There has been an attempt in some states to

limit the fee that a doctor might charge for a prescription. If the fee of a doctor can arbitrarily be made one dollar, for instance, for a prescription to relieve pain there is no telling to what extent the principle might be carried. The recent attempt along this line is illustrative of unsound reasoning. A doctor, for instance, might spend several days in patient clinical and scientific investigation of a patient, bringing into play the most modern methods and scientific instruments and apparatus in order to make a correct diagnosis, spending perhaps several hundred dollars' worth of time and indeed an outlay of a large amount of money, and if at the end of his investigation he saw fit to write a prescription his fee could be only one dollar. A law of such a character would be unreasonable and destroy initiative and pauperize the profession.

FOUNDATION CONTROL OF MEDICAL EDUCATION IN RELATION TO HARVARD

The President of Harvard, in *Supplement to Harvard Alumni Bulletin*, January 19, 1922, says:

After deprecating in last year's report any branching out into new fields of work it may seem strange to announce the creation of a School of Public Health. But in fact it is not a new departure. It is the development in systematic form of work that has long been carried on. For years we have been conducting, in concert with the Massachusetts Institute of Technology, a School of Public Health; and in the Medical School, departments of Industrial Hygiene, of Tropical Diseases and others germane to this general field. The Rockefeller Foundation suggested to us last spring that these agencies should be combined in one school, to be organized under a distinct faculty while retaining an intimate relation with the faculty of medicine. The foundation proposed, if this were done, to assist in developing the school. The suggestion was in the direction of expanding what we have been doing, and was accepted gladly. The sums of money now expended on the departments to be incorporated in the school represent the income on a capital of more than three million dollars. To this the foundation has agreed to add over a million and a half, and eventually half a million more, on condition that the university contributes the

income on an additional million. A considerable part of this can be appropriated from the income of the DeLamar bequest. The school will have for its object both instruction and research in the field of public health, and its courses will be open freely to students in the medical school. In fact some of the courses in each will, no doubt, form a part of the regular curriculum in the other; for many of the subjects dealt with are of necessity common to both schools, neither of which would be complete without a close association with the other. To maintain constant harmony, Dr. Edsall, the Dean of the Medical School, will also be the Dean of the School of Public Health, while many of the professors will be members of both faculties. The plans for the organization of the school are now under consideration by a committee composed of future members of its staff.

The limitation of the number of students in the Medical School and the School of Business Administration has already been noted. In the latter case it is intended to be temporary until such time as the increase in the instructing staff and the provision of a building of its own make enlargement possible. For a type of education largely novel there is no reason to regret that expansion is for the moment impeded. In the Medical School also it may be hoped that the present limit of 125 students in the first-year class is temporary. Nevertheless, it is a policy adopted deliberately by many of the best medical schools of the country in the belief that an increase in numbers would involve less careful instruction of the individual student. The question is not a simple one to be decided on abstract principles, and it is likely to be more insistent in the future than it has been hitherto. Even in some of the colleges the rapid growth in numbers has brought the limitation of admissions prominently forward. Institutions for higher education, whether maintained at public expense or by private endowment, exist not for their own benefit, but for the public service, and owe a duty to the community. They are bound to receive as many students as they can educate effectively. To balance a closer attention to the few against somewhat less care bestowed upon a larger number is not an easy problem. It involves the important question of the selective function of education. If the smaller number are admitted

the weaker students among them can by more individual instruction be enabled to attain the standard required for graduation. If the larger number are received the students with greater natural ability are not likely to suffer as much as those with less ability, and many of the latter will be eliminated in the process. No doubt where the numbers are limited an attempt is made to admit only those applicants most competent to profit by the instruction. This is done in certain professional schools. Admission, for example, to the Ecole Centrale and Ecole des Beaux Arts at Paris is obtained by a rigid competitive examination; and that is possible where, as in France, the schools throughout the country are so nearly on the same level that an examination of this kind is a fair test of proficiency. But it would not be a fair test in this country, except to the extent that it eliminates those distinctly unfit for the work they will be called upon to do. This last object is a sufficient reason for admission examinations to the colleges that retain them, and to us it seems to be justified. But any further limitation by examination or otherwise must be in large measure arbitrary, and therefore objectionable if it can be avoided. Whether it can be avoided or not is a question that may in several directions force itself upon our institutions of higher learning, and requires very careful consideration.

In the medical schools there is another question involved. The cost of all education has risen largely, and in the case of medical schools it has in recent years become prodigious. This is no doubt due in part to the great extension of medical knowledge and the number of subjects with which practitioners must have some acquaintance, many of them such as can be learned only by careful and prolonged observation in the laboratories and clinics. Yet the cost has reached a point where we must ask ourselves how much can properly be spent on medical education, and how much a community can afford to pay for it. We ought to inquire whether by improved methods the vast equipments of medical schools and hospitals cannot be used to better advantage than they are now, and thereby students who now go to less highly developed schools be enabled to obtain the benefit of those schools which are more fully equipped.

ESSENTIAL FEATURES OF STATE MEDICINE

1. Complete control of the medical organization by the Federal Government; every man in the organization to be on a salary basis.

2. Control of all medical schools by a Federal Medical Education Bureau. Medical students to receive their tuition and maintenance free; medical research to be controlled by the Medical Research Bureau.

3. Government control of hospitals and greater emphasis on the hospital training of students.

4. Abolish the private office, establish clinical group of specialists with complete laboratory equipment.

5. Make possible a uniform distribution of work so that nobody will be worked to death and nobody will die of chronic inactivity.

6. Every person to receive adequate medical attention, regardless of his financial means.—*American Medicine, Jan., 1922.*

THE SHEPPARD-TOWNER MATERNITY BILL IS UNCONSTITUTIONAL

Attorney General Allen of Massachusetts in a decision handed down in May holds that the Sheppard-Towner Maternity Act, providing for federal and state co-operation in promoting maternity and infancy welfare and hygiene is unconstitutional.

In his opinion, he said Congress had exceeded its authority, in that the legislation involved police powers which were reserved exclusively to the states.

His opinion was given the legislature of the state of Massachusetts which asked for an opinion as to the constitutionality of the act.

He suggested that Massachusetts might well test the validity of the act in the supreme court of the United States.

The following is the opinion:

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE ATTORNEY-GENERAL,

BOSTON, May 2, 1922.

To the Honorable Senate and House of Representatives, State House.

GENTLEMEN:—You have requested my opinion on the following questions:

"(1) Is the act of Congress, approved November

twenty-third, nineteen hundred and twenty-one, entitled 'An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes,' within the constitutional powers of the federal government?

(2) Has the Commonwealth of Massachusetts any right, as a sovereign State, to question the constitutionality of said act?

(3) Would the Commonwealth of Massachusetts, by the acceptance of said act, waive its right as a sovereign State, if such rights exist, to contest the constitutionality of said act before the courts of the United States?

(4) If, in his opinion, said act is unconstitutional, what procedure can the Commonwealth adopt to raise the question of constitutionality?"

I. The act of Congress, approved November 23, 1921, entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes", commonly known as the Sheppard-Towner Act, authorizes annual appropriations "to be paid to the several States for the purpose of co-operating with them in promoting the welfare and hygiene of maternity and infancy." It contains provisions substantially as follows:

It authorizes the appropriation, for the purposes of the act, of \$480,000 for the current year and \$240,000 for subsequent years, for a period of five years, to be equally apportioned among the several States, and an additional sum of \$1,000,000 a year, for a period of five years, to be apportioned \$5,000 to each State and the balance among the States in proportion to their population, with a proviso that no payment out of the additional appropriation shall be made in any year to any State until an equal sum has been appropriated by such State.

The act creates a "Board of Maternity and Infant Hygiene," with certain supervisory powers. It provides that the "Children's Bureau of the Department of Labor" shall be charged with the administration of the act, and gives the Children's Bureau all necessary powers to co-operate with the States in such administration, for which purpose the Children's Bureau may deduct an amount not exceeding five per cent of the additional appropriations in any year.

Every State is required, in order to secure the benefits of the appropriations authorized, through its legislature to accept the provisions of the act and to designate or authorize the creation of a State agency to co-operate with the Children's Bureau.

Any State desiring to receive the benefits of the act is required by its agency to submit to the Children's Bureau detailed plans for carrying out the provisions of the act within such State, such plans to be subject to the approval of the Board.

Within sixty days after any appropriation under the act, the Children's Bureau is directed to make the apportionment provided for, to certify to the Secretary of the Treasury the estimated expense of ad-

ministration, and to certify to the Secretary of the Treasury and to the treasurers of the various States the amount apportioned to each State. Within the same period and from time to time thereafter, the Children's Bureau is directed to ascertain the amounts appropriated by the several States and to certify to the Secretary of the Treasury the amount to which each State is entitled by reason of such appropriation.

Each State agency co-operating with the Children's Bureau is required to make such reports concerning its operations and expenditures as shall be prescribed by the Children's Bureau, which may, subject to the supervision of the Board, withhold the certificate authorizing payment to any State whenever it is determined that the agency thereof has not properly expended the money paid to it or the moneys required to be appropriated by the State for the purposes of the act, an appeal being given from such determination to the President of the United States.

Thus in effect a system is created by which appropriations are to be made by the federal government and the States which accept the provisions of the act, plans are to be submitted to federal boards, the nature of which appears to be wholly undetermined, except that they must have some relation to the "welfare and hygiene of maternity and infancy" and are subject to certain restrictions stated in the act. Those plans are to be administered by officials, agents and representatives of the Children's Bureau in co-operation with the different State agencies, and control over the conduct of the State agencies is vested in the Children's Bureau and the Board by the provision authorizing the withholding of the federal appropriation in cases where it is determined as to any State that federal or State funds have not been properly expended.

The purpose and effect of the federal Constitution was to secure a federal government with limited and enumerated powers, for national purposes, reserving all other powers to the States and the people. *McCulloch v. Maryland*, 4 Wheat. 316, 405; *United States v. Cruikshank*, 92 U. S. 542, 549-551; *Kansas v. Colorado*, 206 U. S. 46, 81. The powers expressly granted to Congress, including the power to make all laws necessary and proper for carrying the powers enumerated into execution, are all stated in article I, section 8, of the Constitution. All powers not granted to the United States by the Constitution are reserved by the Tenth Amendment to the States or the people. *United States v. Cruikshank*, 92 U. S. 542, 551.

The powers given to the federal government are only those which are necessary to the existence and effective maintenance of the nation. There is no grant of power to Congress to regulate the internal affairs of the States (excepting that given by the Eighteenth Amendment). The police power is a necessary part of the sovereign powers of the States, and was reserved to them by the Tenth Amendment. Each State has the right and duty to provide for the general welfare of its people, and in those respects the authority of the State is complete, unqualified and ex-

clusive. *New York v. Miln*, 11 Pet. 102, 139; *In re Rahrer*, 140 U. S. 545, 554, 555; *Keller v. United States*, 213 U. S. 138; *Hammer v. Dagenhart*, 247 U. S. 251, 274-276; *The Federalist*, No. 45.

The present act vests in the federal government certain powers relating to maternity and infancy. These matters manifestly fall within the scope of the police power. Most of the expense will be borne by a small minority of the States, while a majority of the States will receive a corresponding benefit for which they do not pay. If the United States possesses no police power, as the Supreme Court of the United States has often held, it would seem that this act is an attempt to usurp an authority reserved to the States and to exercise it at the expense of a minority of them, of which this Commonwealth is one.

It appears from the debates in Congress that the proponents of this measure attempt to support it upon the ground that it is a provision for the general welfare of the people of the United States. The words "general welfare" occur twice in the Constitution, once in the preamble and once in article I, section 8.

The preamble is as follows:

"We, the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this CONSTITUTION for the United States of America."

The preamble, however, contains no grant of power. It is a mere statement of the purposes effected by the Constitution itself. *Jacobson v. Massachusetts*, 197 U. S. 11, 22; *Story on the Constitution*, § 462.

I pass, therefore, to a consideration of article I, section 8, of which the first clause is as follows:

"The congress shall have power—to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defence and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States; . . ."

It is plain that the words "to pay the debts and provide for the common defence and general welfare of the United States" are not a substantive grant of power, but a qualification of the first enumerated power "to lay and collect taxes, duties, imposts and excises." Argument is not needed to support this proposition because the authority for it is conclusive.

The history of the adoption of this clause is given in *George Ticknor Curtis's Constitutional History of the United States*, vol. I, pp. 518-521, as follows:

In the first draft of the Constitution the power to tax was stated in what was there article VII, section 1, in the following words:

"The Legislature of the United States shall have the power to lay and collect taxes, duties, imposts, and excises."

5 Elliott's Debates, p. 378.

It was thought that there should be some restraint

on the revenue power, with a view to prevent perpetual taxes of any kind. The matter was referred to a committee of detail, which reported the following addition:

"For payment of the debts and necessary expenses of the United States; provided that no law for raising any branch of revenue, except what may be specially appropriated for the payment of interest on debts or loans, shall continue in force for more than ——— years."

5 Elliot's Debates, p. 462.

This was referred to a grand committee, which introduced an amendment making the whole clause read as follows:

"The legislature shall have power to lay and collect taxes, duties, imposts, and excises, to pay the debts, and provide for the common defence and general welfare of the United States."

5 Elliot's Debates, pp. 506, 507.

This amendment was unanimously adopted. The provision for uniformity was added later.

5 Elliot's Debates, p. 543.

In *Loughborough v. Blake*, 5 Wheat. 317, 318, Chief Justice Marshall said:

"The 8th section of the 1st article gives to Congress the 'power to lay and collect taxes, duties, imposts and excises', for the purposes thereafter mentioned."

Again in *Dobbins v. Commissioners of Erie County*, 16 Pet. 435, 448, 449, the court said:

"The revenue of the United States is intended by the Constitution to pay the debts, and provide for the common defence and general welfare of the United States; to be expended, in particulars, in carrying into effect the laws made to execute all the express powers, 'and all other powers vested by the Constitution in the government of the United States.'"

In *Ward v. Maryland*, 12 Wall. 418, 428, the power to tax was referred to as existing "by virtue of an express grant for the purpose: among other things, of paying the debts and providing for the common defence and general welfare."

In *United States v. Boyer*, 85 Fed. 425, it was held that the "general welfare clause" did not confer any distinct and substantial power on Congress to enact any legislation, but constituted a limitation upon the taxing power.

The text writers also are agreed that the words "to pay the debts and provide for the common defence and general welfare of the United States" are to be construed as if they were preceded by the words "in order", or similar words amounting to a declaration of purpose. Story on the Constitution, §§906-911; Miller on the Constitution of the United States, pp. 229-231.

The form of the Constitution lends strong support to this construction. The document in the rolls of the Department of State shows that in article I, section 8, each of the enumerated powers is numbered, from 1 to 18 inclusive, the first being the power "to lay and collect taxes, duties, imposts and excises, to

pay the debts and provide for the common defence and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States;" and the second the power "to borrow money on the credit of the United States;" and that each power is separated by a semi-colon. Curtis's Constitutional History of the United States, vol. I, pp. 728, note, 731.

While it seems to be definitely settled that the words "to pay the debts and provide for the common defence and general welfare of the United States" are not a substantive grant of power, there has been from the time the Constitution was adopted a contraverted question regarding the interpretation of those words and their bearing on the power of Congress to appropriate money. Hamilton held that Congress had a power to appropriate as broad as the power to tax, and that the revenues of the United States could be appropriated for any public purpose connected with the general welfare of the United States. This doctrine was stated by Hamilton in his Report on Manufactures in 1791. It was adopted and followed by Story (§§ 975-992), and by President Monroe in his message respecting the bill for the repairs of the Cumberland Road, May 4, 1822. On the other hand, Madison held that the general welfare clause is merely descriptive of and limited by the specific grants of power to Congress contained in section 8, and that the power to appropriate money is also confined to the enumerated powers. Madison expressed this view in the *Federalist*, No. 41, and the statement there made must be presumed to have had some effect in obtaining the ratification of the Constitution by the States. He renewed the same statement in his message vetoing the bill for internal improvements, March 3, 1817, and in a letter to Speaker Stevenson, dated November 27, 1830. Madison's view was supported and emphasized by Jefferson, as stated in his Opinion on the Constitutionality of a National Bank, February 15, 1791. See Tucker's Constitution of the United States, §§ 222-231.

The view that the general welfare clause is merely descriptive of the substantive grants of power which follow it in section 8 is supported by the circumstance that provisions for the common defence are contained in the grants of power to declare war, to raise and support armies, to provide and maintain a navy, to make rules for the government and regulation of the land and naval forces, to provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions, and to provide for organizing, arming and disciplining the militia, while the other powers granted in that section are clearly provisions for the general welfare of the United States.

The question as to the extent of the general welfare clause in its application to appropriations of money was expressly reserved by the Supreme Court in *United States v. Realty Co.*, 163 U. S. 427, 440, where the court said:

"It is unnecessary to hold here that Congress has

power to appropriate the public money in the treasury to any purpose whatever which it may choose to say is in payment of a debt or for purposes of the general welfare. A decision of that question may be postponed until it arises."

But the question which I have to determine does not depend for its answer upon a solution of the controversy concerning the limits of the power of Congress to appropriate money. In fact, the Sheppard-Towner Act makes no appropriation of money. It merely purports to authorize sums to be appropriated, thereby announcing, it seems, an intention to appropriate at some future time. It does, however, establish a system by which States desiring to secure the benefits of promised appropriations are required to submit plans for carrying out the provisions of the act to designated federal authorities for their approval, to make appropriations to match federal appropriations, and to cooperate with the federal authorities in the administration of the act, subject to the supervision of those authorities, who, if they determine that either federal or State funds have not been properly expended, may withhold the federal appropriation. This, in my judgment, is not an appropriation bill, but an attempted exercise of power over the subject of maternity and infancy, and thus an incursion into the field of the local police power, reserved to the States by the Tenth Amendment. The objections to the act go further in that the proposed appropriations are not *general* in their application, but are confined to those States which accept the act and appropriate their own funds to be used for its purposes. Hamilton, in his Report on Manufactures cited above, although contending for the broad power of appropriation, says that "the object to which an appropriation of money is to be made must be *general* and not *local*." For this reason the appropriations, if made, in my opinion would not be for the "general welfare of the United States," even if those words are given the broadest signification. Indeed it is yet to be determined that Congress has the power to appropriate to the States, according to any method of apportionment, revenues raised from the people of the United States for national purposes.

If the powers attempted to be exercised by the Sheppard-Towner Act are outside the Powers conferred upon Congress by the Constitution and within the field of the powers reserved to the States, the act is not made constitutional and valid by the circumstance that those powers will only be exercised in or with respect to those States whose legislatures accept it; for Congress cannot assume and the State legislatures cannot yield the powers reserved to the States by the Constitution. They can only be granted to the federal government by an amendment to the Constitution. On this precise subject President Monroe, in his message vetoing the Cumberland Road bill, referred to above, holding that Congress had not the power, even with the consent of the States affected, to establish turnpikes with gates and tolls as internal improvements, said:

"I am of the opinion that Congress do not possess this power; that the states, individually, cannot grant it; for, although they may assent to the appropriation of money within their limits for such purposes, they can grant no power of jurisdiction or sovereignty by special compacts with the United States. This power can be granted only by an amendment to the Constitution, and in the mode prescribed by it."

In reply to your first question I am therefore constrained to say that I am of opinion that the act referred to is not within the constitutional powers of the federal government.

II. Your second question, whether the Commonwealth of Massachusetts has any right as a sovereign State to question the constitutionality of the act, and your fourth question, what procedure can be adopted to raise the question of constitutionality, will be considered together.

It is well established that any person whose rights are directly affected by an act of Congress may question its constitutionality before the court, and that it is the court's duty in a proper case, where an act of Congress infringes upon the provisions of the Constitution, to declare that act unconstitutional and void. *Vanhorne's Lessee v. Dorrance*, 2 Dall. 304, 308, 309; *Marbury v. Madison*, 1 Cranch 137; *McCulloch v. Maryland*, 4 Wheat. 316, 400, 401.

But the right to declare an act unconstitutional can be exercised only when proper parties are before the court, in an actual controversy, involving the constitutional question in the determination of the rights of litigants. *Steamship Co. v. Emigration Commissioners*, 113 U. S. 33, 39; *Muskraat v. United States*, 219 U. S. 346, 361; *Fairchild v. Hughes*, No. 148—October Term, 1921.

The most direct method of testing the constitutionality of the Sheppard-Towner Act, if not the only method, is by proceedings in equity against those officials of the federal government who are acting or preparing to act to carry its provisions into effect. By U. S. Const., art. III, sec. 2, the Supreme Court has original jurisdiction of all cases in which a State shall be a party. The inquiry, therefore, is, in the first instance, whether the Commonwealth may maintain such a suit in the Supreme Court as party plaintiff, and secondly, whether the suit will lie against federal officials as parties defendant.

1. There are instances of suits brought by States which the Supreme Court has declined to entertain on the ground that they called upon the Court to determine questions which were political and not judicial. The most noteworthy of these cases is *Georgia v. Stanton*, 6 Wall. 50, where the State brought an original bill to restrain the Secretary of War and other officers of the government from carrying into effect the so-called Reconstruction Acts. The court held that the rights for which protection was sought were rights of sovereignty, that no rights of persons or property were being infringed, and that the questions were political; and they dismissed the bill

for want of jurisdiction. The decision, however, seems to go no further than *Luther v. Borden*, 7 How. 1, and *Pacific Telephone Co. v. Oregon*, 233 U. S. 118, holding that it is for Congress and not for the court to decide what is the established government in a State, and to enforce the constitutional guaranty of a republican form of government, the questions involved being political and beyond the judicial power.

On the other hand, the court has from early times entertained suits to determine which of two States had political jurisdiction over disputed territory, since such a controversy is clearly justiciable. *Rhode Island v. Massachusetts*, 12 Pet. 657, 736-738; *Virginia v. West Virginia*, 11 Wall. 39. More recently the jurisdiction has in many cases been sustained in suits by States to enforce their sovereign rights, and as *parens patriæ* or representative of their citizens.

The question whether a State may sue as representative of its citizens was presented but not settled in *Louisiana v. Texas*, 176 U. S. 1, 19. But in later decisions this question has been answered in the affirmative, and the distinction made in *Georgia v. Stanton*, 6 Wall. 50, between rights of property and rights of sovereignty has been disregarded. These decisions have made it plain that suits by States will lie for the protection both of their own sovereign rights and of the personal and property rights and welfare of their citizens generally. On these grounds suits have been sustained to restrain interference with the flow of rivers and water supply, and pollution of the air. Jurisdiction is accepted broadly wherever the controversy is justiciable in its nature, in recognition of the fact that the States in joining the union relinquished the right they would otherwise have had to seek remedies by negotiation or force, that there should be some remedy for the settlement of disputes, and that one may be found in the constitutional provisions giving the Supreme Court jurisdiction of suits by States. *Missouri v. Illinois & Chicago District*, 180 U. S. 208, 241; *Kansas v. Colorado*, 185 U. S. 125, 206 U. S. 46, 83, 84, 89; *Georgia v. Tennessee Copper Co.*, 206 U. S. 230, 237; *Virginia v. West Virginia*, 220 U. S. 1, 27; *New York v. New Jersey*, 256 U. S. 296, 301, 302.

The question whether an act of Congress is in violation of the reserved powers of the States and therefore unconstitutional seems clearly to be justiciable, and the Supreme Court has so decided in *Hammer v. Dagenhart*, 247 U. S. 251. In that case the court held that a United States district attorney should be enjoined from enforcing an act of Congress prohibiting the transportation in interstate commerce of products of child-labor, on the ground that the law was an invasion of the local police power, reserved to the States by the Tenth Amendment.

Where an act of Congress encroaches upon the rights reserved to the States by the Tenth Amendment, any State affected thereby must have the right to resort to some tribunal for the protection of those rights or be without remedy. That the States them-

selves are entitled to such protection by the judicial power, and that it is the duty of the court, in a proper case, to hold such an act unconstitutional, and to grant relief, has several times been declared. *Ableman v. Booth*, 21 How. 506, 519, 520; *Gordon v. United States*, 117 U. S. 697, 700, 701, 705; *Matter of Heff*, 197 U. S. 488, 505; *South Carolina v. United States*, 199 U. S. 437, 448.

If, for reasons stated, the Sheppard-Towner Act is unconstitutional as representing an attempt by Congress to exceed its constitutional powers and to usurp the rights reserved to the States by the Tenth Amendment, it follows that the Commonwealth in a proper case can raise the question of constitutionality by bringing suit in the Supreme Court, if and when it is affected by the act.

The act does not confer upon the federal agencies created or designated by it any authority which operates in Massachusetts unless and until its Legislature accepts the act and makes the required appropriation. If the Legislature purports to accept the act, the right of the Commonwealth subsequently to complain that the act is unconstitutional, as hereafter stated in reply to your third question, will be open to serious question. If the act is not accepted and does not become operative within the Commonwealth, there would be no encroachment upon the police power of Massachusetts if the act should be put into effect in other States.

It does not follow, however, that the Commonwealth is not affected if the act is put into effect in other States. The grants to such States are to be paid out of the federal treasury. That treasury is replenished by internal revenue taxes paid by the people of the several States. It has been estimated that 5.66 per cent of those taxes are paid by the citizens of Massachusetts. If Massachusetts can and does accept the act it has been estimated that the return to it thereunder will be less than half the amount collected from its citizens. If Massachusetts does not accept the act its citizens will be taxed in order to carry into effect an unconstitutional law in other States. Assuming that a federal tax, otherwise lawful, imposed to raise revenues for lawful purposes does not become unconstitutional because it taps and diminishes a source of revenue available to the States (*Knowlton v. Moore*, 178 U. S. 41; *New York Trust Co. v. Eisner*, 41 Sup. Ct. Rep. 506), it does not follow that a State whose revenues are diminished by federal taxation imposed in order to execute an unconstitutional law is not so affected thereby that it cannot attack that expenditure in the Supreme Court of the United States. If the State is without remedy it is under the dilemma of consenting to be stripped of a power reserved by the Tenth Amendment, in order to share in such unconstitutional benefits as Congress may choose to accord, or else of bearing unheard and without redress a part of the burden of conferring such alleged benefits on other States.

The right of Massachusetts to bring suit may be supported upon the further ground that the rights of its tax-paying citizens are invaded. It is doubtful

whether taxpayers can maintain suits in their individual capacity to restrain an unconstitutional expenditure. See *Bradfield v. Roberts*, 175 U. S. 291; *Millard v. Roberts*, 262 U. S. 427, 438. There is, however, in my opinion strong argument for the view that the State can present the question on their behalf as *parens patriæ*, following the analogy of the nuisance cases already cited. If neither the State nor the taxpayer can sue, then there can be no remedy against such an unconstitutional exercise of power by Congress, although the issue is plainly justiciable.

The novelty of the question prevents a more definite answer to your inquiry. It is for the Legislature, in its wisdom, to determine whether a question of such vital importance to the State involving, as it does, a principle capable of indefinite application in the broad and paternalistic field of social welfare should not be submitted for adjudication to our highest court.

2. It remains to be considered whether suit may be brought against the federal officials whose duty it is to administer the act.

In *Mississippi v. Johnson*, 4 Wall. 475, the Supreme Court denied leave to file a bill against President Johnson to restrain him from putting the Reconstruction Acts into force. In *Georgia v. Stanton*, 6 Wall. 50, the Supreme Court dismissed a similar bill, as already stated. The circumstances which led to the passage of these bills, which were designed to create a temporary government for the seceded States, and the effect of later decisions afford ground for belief that those decisions would not govern in the present case.

Later cases hold that suit will lie where rights of property are unlawfully invaded by federal officers, and where the United States is not a defendant or a necessary party. *United States v. Lee*, 106 U. S. 196, 204-208; *Noble v. Union River Logging R. R.*, 147 U. S. 165, 171, 172; *Belknap v. Schild*, 161 U. S. 10, 18; *School of Magnetic Healing v. McAnnulty*, 187 U. S. 94; *Lane v. Watts*, 234 U. S. 525, 540. Furthermore, the court has frequently held broadly that State officers clothed with some duty in regard to the enforcement of the laws of the State may be enjoined from proceeding under an unconstitutional statute which they are about to enforce to the plaintiff's injury, and that a suit for such injunction cannot be regarded as a suit against the State. *Osborn v. United States Bank*, 9 Wheat. 738, 846, 857; *Davis v. Gray*, 16 Wall. 203; *Bennoyer v. McConaughy*, 140 U. S. 1, 10; *Smyth v. Ames*, 169 U. S. 466, 518, 519; *Ex parte Young*, 209 U. S. 123, 149, 155, 156; *Western Union Telegraph Co. v. Andrews*, 216 U. S. 165; *Truax v. Raich*, 239 U. S. 33, 37; *Greene v. Louisville & I. R. R. Co.*, 244 U. S. 499, 506, 507. Recently this same principle has also been extended to suits against federal officers seeking to restrain them from acting under statutes alleged to be unconstitutional. *Philadelphia Co. v. Stimson*, 223 U. S. 605, 619, 620; *Wilson v. New*, 243 U. S. 332; *Hammer v. Dagenhart*, 247 U. S. 251. Federal jurisdiction does not depend on

diversity of citizenship, but exists because such suits arise under the Constitution or laws of the United States. *Ex parte Young*, 209 U. S. 123, 143-145.

In the *National Prohibition Cases*, 253 U. S. 350, two of the cases were suits by the States of Rhode Island and New Jersey against the Attorney General and the Commissioner of Internal Revenue, seeking to have the Eighteenth Amendment and the Volstead Act declared unconstitutional and void, and to enjoin the enforcement of the act. The main ground on which unconstitutionality was claimed was that the amendment and the act constituted an interference with the sovereign rights of the States to govern their internal affairs, that is, the local police power. Original bills in each of the two cases were permitted by the court to be filed (252 U. S. 570), and no question of jurisdiction was raised or reserved in the opinion by which all the suits were dismissed on the merits.

The opinion in the recent case of *Texas v. Interstate Commerce Commission*, No. 24 Original,—October Term, 1921, contains an intimation that the original jurisdiction of the court over suits where States are parties may be somewhat narrow, but the decision of the case goes on the ground that necessary parties were not before the court.

I conclude, therefore, that assuming that the Commonwealth may bring the suit as party plaintiff, the fact that the defendants would be federal officials would not defeat it.

III. Your third question is whether the Commonwealth by accepting the act would waive any right it may have to contest the constitutionality of the act before the courts of the United States.

The act provides that any State in order to secure the benefit of federal appropriations must accept the provisions of the act, designate the State agency with which the Children's Bureau is to co-operate, and submit to the Children's Bureau detailed plans for carrying out the provisions of the act within the State. It contemplates also appropriations by the State to match federal appropriations. These provisions, it seems to me must be construed as a proposal for a contract with the several States which, when accepted by any State, would constitute an agreement by the State to be bound by the terms of the act, if such an agreement could be made. Whether the State, acting by its Legislature alone, or in any manner other than that provided by the Constitution itself, can contract away its sovereign rights is a matter of grave doubt. But apart from any question of the validity of such a contract, there would appear to be an inconsistency in accepting the benefits of the act and then bringing suit to avoid its obligations and effect.

I am therefore of opinion that the passage of an act by the General Court accepting the provisions of the Sheppard-Towner Act would place the Commonwealth in a less favorable position to contest its validity.

Very truly yours,

J. WESTON ALLEN,
Attorney General.

CONGRESSMAN VOLK'S (Dr. Volk) COMMENT ON THE JONES-MILLER BILL PRO- HIBITING THE IMPORTA- TION OF OPIUM

May 11, 1922, Congressman Volk issued the following statement:

The passage of the Jones-Miller Bill to prohibit the importation of opium for other than medicinal purposes, has again directed the attention of the country to the importance of the narcotic problem.

What is the narcotic problem in the United States today?

It has developed upon the need of certain individuals for narcotic (opiate drugs). This need varies from the necessity of administering life saving medication over varying periods of medical and surgical emergency to the meeting of the therapeutic indications in the treatment and care of the established case of opiate addiction.

There are two fundamental issues:

- (1) How can we best take care of the narcotic addicts we have?
- (2) How can we best prevent the making of more addicts?

For twelve or fourteen years, first as physician, then as legislator, editor of a medical journal and lawyer, I have watched and been in close contact with the phases through which the making and interpreting and administering of narcotic laws have passed in this country. From a fundamentally simple problem, it has become more complex through manipulation by different and recurring promotions of the type which may be termed medico-political, commercial, uplift and reform and plain morbid publicity. These by intensive publicity and other "drives" have attempted to put over special panaceas or formulae purporting or advertised to remedy the situation.

In the year 1913, based on the experience of the Federal administrators up to that time, together with the findings of legislative investigating bodies in New York, as well as coincident study by a committee of the judiciary of New York State, and with the approval of the medical and allied professions, the problems seemed definitely settled and a basis for the constructive remedial measures finally established.

All this, however, was interrupted by our entrance into the world war and at about the same time the control over administration passed into the hands of the newly-created Prohibition department and the influences mentioned in my speech of January, 1922, before Congress on "Narcotic Drug Addiction."

Cocaine and alcohol have no part in the narcotic drug problem. Their inclusion in the past has served only to complicate and obscure the real issues and problems. It has no scientific basis.

Advertised and exploited panaceas contributing to the prosperity of specific treatments, remedies and so-called "cures," or the publicity of some administrative exploitation, have constituted the most important evil of the whole situation. They have created the drug problem today through their incompetency and

propaganda and have been the real obstacle to true medical progress.

Failing in repeated efforts at real cure, the unfortunate addict has been compelled to continue his opiate.

The idea that narcotic addicts in general are degenerate and criminal is a promoted fallacy. The most reliable estimates place the criminal or degenerate types of addicts as from twenty to ten per cent. About the same percentage would be found in all other medical conditions. In other words, the real practical problem of the narcotic drug situation which is absolutely neglected today is the humane and scientific care and so far as possible cure of from eighty to ninety per cent of those afflicted with this condition, who are decent and respected in the community.

Ignore this and you create and force patrons and customers for the criminal vendors of the underworld and increase smuggling and corruption of officials by creating opportunity in an immensely profitable enterprise.

This is the real basis for the present situation.

How can we best prevent more addicts from being made?

The traffic whose commercial extension is making most addicts today was created as an industry by the closure or obstruction of legitimate medical channels of study and treatment and education. Wise and sane administration and interpretation of laws, aided by truly educational publicity, has at times succeeded in interrupting and checking this traffic. The sensational publicity periodically given to morbid aspects of the ten to twenty per cent of addicts who are admittedly criminal or defective individuals, has served only to advertise and renew and enlarge the business of the "underworld" exploiter and the quack.

Cut out the profit for the underworld and criminal traffic, and you make no new addicts. Where there is no profit there is no market for the wares of the smuggler and peddler and no incentive for them to extend their business.

Encourage honest attention to the needs of the innocent afflicted, made so by unavoidable or necessary medication—open up the avenues of reliable information and progress and education for the medical profession,—and you take out of the clutches of the underworld eighty to ninety per cent of its possible patronage and practically all of its profit. For its real profit does not come from the much advertised criminal type of addict but from the neglected honest and self-supporting persons addicted, forced into its channels of exploitation and extortion.

The exploitation of human misery by the charlatan and criminal underworld with their associates must be stopped by every available means at our disposal. Ten to twenty per cent are addicts of a vicious or degenerate or criminal type. *These are a police problem.* There is no profit in their exploitation. They herd together. They are self-eliminating. They are only of interest as a police or sociological problem.

The real profit which keeps alive the underworld

smuggling and peddling comes from the exploitation of honest and decent and often illustrious people driven into their clutches through enforced abandonment and neglect of their needs.

We must eliminate the terrorism by administrative subordinates and get back to a condition of sanity and normalcy with a due regard and appreciation for the practical and desired. We must eliminate the promoters of specific "cures" and "panaceas,"—drive out political and commercial exploiters, and encourage the medical workers and students to once more take up the study of narcotic drug addiction.

"Ambulatory treatment," "hospitalization," "satisfaction of craving," and the handful of other phrases which have been cleverly used as propagandic slogans distracting from the real work and the issues, must be, in the light of available medical and sociological facts, relegated to the history of the past.

The object of an investigation is to release and make available to all a really competent basis for the remedy of existing conditions and the prevention of their further extension. Until we have something which makes all possible information accessible and available, and the true facts of this diseased condition recognized, there is no hope for sane legislation, competent administration or any medical or scientific remedy for its prevention and treatment.

The solution of the drug problem today is the common-sense application of existing information.

Make possible the employment of existing facilities and knowledge,—encourage the widespread further study and work among those fitted and equipped for such endeavor, i. e., the great mass of honest practicing physicians, hospitals and scientific institutions, and you have gone a long way towards the settlement of this complicated medical condition.

If there had been one-tenth as much publicity for facts as there was for spectacular morbid details and for catchy slogans and for false panaceas,—there would be no drug problem to-day.

Let the police take care of the ten to twenty percent criminal or degenerate addicts. Let the medical profession take care of the honest addicted persons. Get the only profession that can solve medical problems and care for the sick back into its legitimate and proper sphere without danger of oppressive administrative interference and over-regulation, and you at once eliminate the profit from illegitimate channels of exploitation and solve the problem of smuggling and peddling.

Smuggling and peddling follow no line nor laws of legislative creation. They follow the inevitable laws of demand and supply.

Whether the Jones-Miller Bill will prove a constructive piece of legislation, or an instrument for the further extension of the ills now existing will depend entirely upon whether those who are to interpret and administer it and apply it have full available medical information to guide them in the exercise of their judgment and regulatory power.

SPECIAL COURSE OF INSTRUCTION IN TUBERCULOSIS FOR PRACTITIONERS

During the Summer Quarter at Rush Medical College the regular course in tuberculosis is given to students. This course, as in former years, is open to physicians and advanced students in medicine. The course, consisting of lectures and clinics, is outlined as follows:

Beginning with the history of tuberculosis, continuing the study of the etiology, aetia of infection, heredity and predisposition, infection and contagion, immunology, histology and pathology, we take up the consideration of pulmonary tuberculosis, the symptomatology, diagnosis, prognosis and treatment. Particular attention is given to the physical examination by inspection, palpation, percussion, auscultation and roentgenology. The medical and surgical treatment of pulmonary tuberculosis will be fully considered including heliotherapy, hydrotherapy, reconstructional or occupational therapy, etc. Tuberculosis in children and the various complications like tuberculous pleurisy, tuberculosis and pregnancy, tuberculosis of bones and joints, genito-urinary, skin, etc., are studied. Tuberculin will receive special consideration.

This course will be given every Wednesday and Saturday morning from 9 to 11 o'clock beginning Wednesday, June 21st, continuing to Wednesday, August 30th, inclusive. For particulars communicate with Rush Medical College, 1749 W. Harrison St.

PHILADELPHIA RETAIL DRUGGISTS AWAKE TO THE MENACE

WHEREAS, The real intent of the Harrison Act is to curb the illicit use of narcotic drugs, to the end that large numbers of our citizens may not become addicts; and

WHEREAS, Under the present administration of the act the illicit use of narcotic drugs and the number of addicts are constantly increasing; and

WHEREAS, Instead of making a real effort to check the illicit traffic and seek out the sources of supply, large numbers of people are uselessly engaged in going over reports and checking up those who are legitimately engaged in the manufacture, handling, prescribing and dispensing of narcotic drugs; and

WHEREAS, The bureaucratic administration of

the law is so onerous and restrictive on retail pharmacists, whose work is largely humanitarian, inasmuch as they aim to alleviate physical suffering, that it is practically impossible to conduct their business without almost daily infracting some one or more of the insane and ridiculous regulations promulgated; therefore be it

Resolved, That the Philadelphia Association of Retail Druggists, consisting of over seven hundred members, unanimously endorse House Resolution No. 258, introduced by the Hon. Lester D. Volk, of New York, and pray that favorable action be taken on the said resolution: and be it further

Resolved, That these resolutions be presented to the Congress through the Hon. Lester D. Volk.

JOS. W. NOBLE, President,

OTTO KRAUS, Secretary.

Philadelphia, Penna., May 11th, 1922.

GOVERNMENT DICTATION OF MEDICAL PRACTICE HAS REACHED AN ALARMING STATE

The tendency of the Federal Government is to extend its powers and activities far beyond the original purposes contemplated by the framers of the constitution.

The idea of Federal domination of medical practice as well as in other matters is being generally agitated by small but active factions in our country. The movement has reached an alarming strength. The unhappy omen is, that so many Americans are utterly unaware that this movement indicates that there is to be an essential change in our form of government.

The danger which every republic should fear is overcentralization, with the subsequent substitution of domination by one man for the rule of the people. Germany is the historic symbol of absolutism. We have just concluded a war, undertaken, we are told, that democracy might not perish from the earth. If this is true, to attempt to centralize in Washington the management of affairs that rightfully belong to the respective states is to create a system which cannot but destroy democracy among our people by betrayal of principles which are the fundamentals for the maintenance of government.

The centralization of power, whether in industry, commerce, education or the trades or professions or other factors entering into affairs of

our everyday life amounts to this: That if we grant to an individual the power to make standard or be the sole authority to revise, abolish or fix conditions under which the people of the future have to live, work and be educated we set up an oligarchy which will create and foster bolshevism.

Another tendency is to foist bureaucratic institutions upon the people with its added swarms of employees. Such swarms are bad enough wherever found, but in the management of government practice of medicine will be fatal to the interests of the people.

Personal freedom is in danger, and personal freedom is an essential condition for progress in society. Government ownership of anything tends to shackle freedom. The balls and chains on the hands and feet of a convict in prison are quite bearable in comparison with the shackles which government practice of medicine would forge upon members of society.

Bureaucratic administration and government practice of medicine will mean compulsory shifting of duties proper to the individual to a subsidized governmental agency and this in the end will destroy the initiative, self-reliance and independence, without which democracy generates into autocracy.

Socialistic schemes, such as health insurance, state medicine, etc., for the control of medicine would be the opening for the thousands of similar laws that would follow. In a short time after the enactment of initial ones the government would be embarking wholesale in enterprises for which no constitutional bill of rights exists, and which forthwith establishes a socialistic state. And where would it all end? We know where it ended in ruined Russia. Are we a people so favored that we can sow the wind and fail to reap the whirlwind, that we can play with pitch and elude defilement; set in motion efficient causes and escape effects; establish a system of autocracy embracing every human activity and continue to be a nation of free people—a republic—an indestructible union of indestructible states?

Parliament, it has been said, is omnipotent, but even parliament cannot create adjacent hills without intervening valleys. Can the people of America set up industrial autocracy in Washington without resulting industrial slavery? Per-

haps, but only in those idyllic days when the lion and the lamb lie down together and when without restraint the festive cow (?) shall vault over the silvery moon, and everywhere by act of congress, five is the sum of two plus two.

One hundred years ago the signers of the Declaration of Independence, the framers of our National Constitution, never dreamed of the possibility of the federalization of everything in the United States. Today we are facing the federalization of medicine as exemplified in the Shepard-Towner Bill, the federalized school as represented by the Smith-Towner Bill and these, if enacted, will be followed by and used as justification for the federalized church or federalized method of worship and of all details of daily life.

Medical men should be wise to the situation. The current of present-day social talk is strong for federalized medicine. The movement must be headed off or directed rightly. It is part of social wisdom to erect breakwaters which will deflect erring currents into socially useful channels.

Before the movement gains further headway the medical profession as well as the public should be brought to a realization of the harmful influences resulting from the establishment of a bureaucratic form of government.

The medical profession should unitedly vigorously oppose any and every scheme brought forward which is intended to fix with practical irrevocability essential changes in the management of our every-day affairs for the good and sufficient reason that the welfare of generations of Americans yet unborn and the future efficiency of medical practice hang in the balance.

OUR HODGE PODGE GOVERNMENT SENATOR JAMES W. WADSWORTH TELLS THE TRUTH

Advocating the installation of a budget system, to enable the average citizen to "know something about what his Government is doing with his money," the Senator makes this bold statement:

"The truth of the matter is that the Federal Government has become so complicated under our hodge-podge way of carrying it on, its ramifications have reached such an extent, and its undertakings have become so huge that I venture to say, with all respect to my colleagues in the Senate and to other public officers, that there is not

a man alive today, from the President down, who understands and comprehends the Government of the United States. It is beyond the ken of individuals, or of any individual, as at present organized."

The Government has made such a botch of everything it now wants to card index the pregnant women of the country, take over the care of motherhood and do everything that is none of its concern. No one in the long run would regret such a system of paternalism worse than the mothers themselves.

THE ORGANIZATION OF THE MEDICAL PROFESSION INTO A FIXED ARIS- TOCRATIC TRADES UNION

The external economic pressure from industrial medicine, state medicine, and hospital exploitation upon the medical profession has not been the only factor in bringing about its embarrassing isolation and helplessness. Some twenty-seven years ago, *the loose democratic national association* which had slowly grown up after its first formation in 1850, *lost its code of ethics and submitted to a dual organization designed to separate its scientific from its corporate activities. Two franchises and two houses were established, and like Napoleon's two chambers of notabilities, in one it is permitted to talk but not vote, in the other to vote but not talk. The delegates are a permanent unapproachable body. The open meetings cannot initiate or act on matters of professional policy.* Seven years would be the shortest time in which reorganization could be consummated were the whole body of medical men determined upon it.

With the star chamber organization has come a medical press, dictated by the same political patientless medical officers. We have in the United States one great national weekly, under the national association, one state weekly medical journal under a state organization, and two independent weekly medical journals both in the City of New York. The score or more of state monthly medical journals are, with one notable exception, dominated by the national organizations and edited impersonally. *A few special monthly journals and one or two state journals and one or two state monthlies remain free from domination from above. The fact remains that the medical press of this country is impersonal*

and timid. There is scant opportunity for the effective expression of the opinions of the serious physicians either on the floor of the local medical society or in the medical press.—American Medicine, 12-21.

THEY KNOW BUREAUCRACY FROM BITTER EXPERIENCE. MEDICAL MEN SHOULD PROFIT BY THE EXPERIENCE OF ALASKA

BUREAUCRACY IN ALASKA CALLED COUNTRY'S CURSE

ONLY CAPITAL CAN SAVE IT, RESIDENT THERE SAYS

Thomas B. Drayton of Seward, Alaska, under date of May 1st, in a letter to the *Chicago Tribune* says:

Among the intelligent people of Alaska there is no division of opinion, no shadow of doubt, that a continuance of the present bureaucratic system of government will eventually result in the virtual depopulation of the territory.

Already many sections of Alaska formerly occupied to a greater or less extent by white pioneers have witnessed the exodus of the last white settler, and are again parts of the primeval wilderness. The permanent inhabitant, the man attached to the soil, is already virtually a memory of other days.

Those of us who remain are experiencing the brutal disillusionment that came to wiser men more readily. In point of fact, the sole reason we remain in Alaska is because we are too poor to get away.

Gloomy Picture Painted

Some of us expect to die in Alaska, but those who do, feel themselves too old to start life again under a new and strange environment. Few men in Alaska under 50 could be found who would not eagerly seize an opportunity to get out if given transportation and assured of a fairly certain means of livelihood in the States. A limited number of tradesmen are in moderately comfortable circumstances, but these have gradually absorbed the resources of the communities in which they operate.

The rank and file of the people remaining in Alaska are not more than two jumps ahead of the wolf.

To shift from generalities to concrete facts, it may be said that outside of the mercantile and professional classes not one Alaskan in twenty can afford the luxury of sheets and pillow cases on his bed; not one out of fifty owns two decent suits of clothes; not one out of a hundred has the use of a bathtub; and not one out of a thousand but dreams of the hour when he can escape from Alaska to a new home where hope and opportunity are not closed to him and to his children.

Starving Amidst Plenty

And this condition exists in a country literally bursting with natural wealth, where a few years

ago everybody was prosperous, everybody happy, and everybody considered himself a permanently established factor in the founding of a great and flourishing state.

When the potential wealth of Alaska first began to be realized abroad faddists and doctrinaires took instant notice. The federal bureaus in Washington were equally alert and prompt in attaching their stamp to bewildered Alaska. The development of the territory had already received an immense stimulus. The urge of achievement was in every man's heart. The future greatness of the country seemed assured.

In quick succession one bureaucratic agency after another swooped down upon the defenseless land. New fangled administrative fads and experiments followed fast and furiously upon the heels of each other. Gradually enterprise was strangled and the wheels of business came to a stop. Men of better judgment at once abandoned the territory.

Country a Total Loss

The more optimistic hung on. Things went from bad to worse until they have finally culminated in the social and industrial collapse of the country. Today no other region of the earth of such natural wealth and advantages is at so low an ebb. Tomorrow the country will be virtually deserted. Bureaucracy and faddism is the answer.

The triumph of bureaucracy was great, but the catastrophe to Alaska was greater. Wiser men read the purpose in its earlier stages and fled the country while there was yet time to save something from the impending wreck. Those of us who remained gambled with chance and lost.

The net result, and the ultimate result, has been that the hardy stock which blasted open and exposed the wonders of this great storehouse of natural wealth is now divided into two separate classes.

The larger and more important class consists of the exiles now domiciled in Canada or the States. These men are bitter, resentful, and skeptical of any measure proposed by the American government for the redemption of Alaska.

Fruit of Bitter Experience

They know bureaucracy from bitter experience, and know well that no relief will ever be afforded suffering Alaska at the expense of bureaucratic authority and bureaucratic jobs if bureaucratic influence in Washington can prevent it. Men of this type will never again take up a residence in Alaska. Their return is hopeless, independently of what real or ostensible amelioration the congress may attempt.

The other class consists of those of us who have for one reason or another, mostly poverty, been unable to escape. Tragic as it may be, and humiliating as it may be to confess it, those of us who remain have outlived our usefulness as a virile, dominant force in society.

Our nerve is gone; our morale vitiated to the point of ineptitude. We are simply hanging on,

hoping by some miracle to realize a trifle from what little we have left and then to escape. We are whipped, cowed, and of broken spirit; down and out for good. What the physical forces of nature could not do the American government has done through the administrative agencies it has let loose upon us. —*Chicago Tribune*, May 15, 1922.

AGITATION FOR FREE CHOICE OF PHYSICIANS IN NEW YORK STATE AND WHAT IT LEADS TO. ANOTHER VIEW-POINT

Under the above caption, the *Medical Week* of March 25th, reprints a statement by Oliver G. Brown which endeavors to point out numerous reasons why a free choice of physicians under the Workman's Compensation Act would work dire havoc to the entire community. In fact, if we are to believe all the arguments advanced, the result of permitting an injured workman to select the doctor who shall treat him is likely to be so disastrous, so terrible, that one must shudder at the prospect for, in the words of the article, it "will have very dangerous results." The first contention is this that the doctor does not figure in the problem of restoring injured workmen to health; that the law does not provide for him at all. This is a deliberate distortion of the facts. For the law distinctly provides that the doctor shall fix his charges in accordance with certain definite standards of the locality in which the physician is practicing and of the financial status of the injured employee. Moreover, it provides that the physician's charges shall be borne by the employee. Therefore it is absolutely certain that the doctor does figure in the matter.

The second point made in the article is this: "By no stretch of the imagination can it be said that the Legislature had in mind granting any special favors to the medical profession." Of course not. Who ever said they did? The medical profession is not looking for any "special favors" under the Act. All we ask for is fair play to all. If it is a "special favor" to the medical profession to be permitted to treat workmen who are injured at their work, then let the undertakers do it; or let the insurance companies do it; or perhaps the legislators wanted to do it themselves. Why should the medical profession get any special favors in the matter?

In firing his third gun, Mr. Brown inadvertently contradicts his former arguments when he says: "The enactment of the medical section did give the doctors a privilege they had not previously enjoyed, in that it assured them their pay." For this we should humbly give thanks to the legislators and the august Mr. Brown. Continuing he says: "It made secure that which was insecure." Any one unfamiliar with the facts might imagine that workmen were habitual dead beats—not in the habit of paying their medical bills. Nothing could be further from the truth and every physician knows that as a class there is no more honest or grateful individuals than the type of wage earners coming under the Compensation Act.

His next contention is "That the law at the present time provides and has at all times provided for absolute free choice of physicians, so far as the injured workman is concerned. Furthermore, to get the *business* (his italics; not mine) there is the fullest and freest competition permitted by the law." Both of these statements are such gross distortions of the truth (there is one very short, ugly word which is far more correct) that nothing need be said to refute them. Everybody knows that this is not so, even Mr. Brown himself.

Continuing, the article states, "This competition (to get the business) is based on ability and merit and not on intrigue." The author of that paper undoubtedly has a wonderful sense of humor. It is an old trick on the stage, when a vaudeville artist wants to draw forth a laugh, to take a simple statement of fact and reverse it. It's a pretty cheap trick, too, but it works. We know only too well that the fellows holding down the compensation jobs are in most instances doing so, first, because they had the influence and, second, because they do the work cheaper than the prevailing rates.

However, without paying any further attention to all this rot, we may properly ask the following: If it be true that the compensation work is now in the hands of the most competent and skilled, and that they are getting the "business" purely on merit, what harm would there be in granting a free choice of physicians? These men of "merit" would still get the work.

Because of this situation, the statement continues, "The law guarantees competent and adequate service to the injured man. Nothing could be fairer." Really, it is too bad that Mark Twain isn't alive to take instruction under Oliver G. Brown. Despite the fact that under the Compensation Law an injured employee must pay for services out of his own funds if he goes to any physician other than the one selected for him by his employer's insurance company, there isn't a day but that hundreds are being treated by doctors of their own choice. Why? Is it because the compensation insurance physicians are so competent? As a typical illustration only a few days ago I extracted an embedded foreign body from a man's eye which had been "removed" by the company doctor two days before. I dare say there are very few physicians who have not treated injured workers after they had been "cured" by the "compensation doctors."

The paper continues with many more statements, each of which seems to be so much further from the actual state of facts that the one preceding that it is truly disgusting and does not merit a reply. Thus it states, "Here and there in the medical profession is to be found a doctor displeased with present conditions." What is there to be said to a man who will deliberately make such a statement? What can be said?

The fault of the entire situation lies largely with the medical profession itself. We are not united. We act as individuals and not as a body. The legislators do not give a fig for us as a class. We do not count. The few who are in the pen (those who have secured the compensation work, usually by under-bidding) are

anxious to keep the others out, not knowing that the insurance carriers are always ready to put one bunch against the other, to save their dirty shekels. The law in this State provides that no corporation shall practice medicine for profit. Yet it is difficult to understand what else one could call it when insurance companies are permitted to employ doctors to diagnose and treat patients in order to save or make money for the carriers. The Compensation Law is of the insurance companies, by the insurance companies, and for the insurance companies, first, last and all the time.

LOUIS H. SCHWARTZ, M.D.,

1186 Lexington Avenue,
April 1, 1922.

THE FREE CHOICE OF THE PHYSICIAN

Editor Public Forum:

In opposing the free choice of the physician in workmen's compensation cases, Oliver G. Brown says: "Surely no employer is interested in cheap medical attention." As the employer must pay the doctor's bill he is *surely* interested in cheap medical service and, as the employer is not competent to judge who is an incompetent physician, he will always employ the incompetent physician for he is the cheapest.

Brown says: "The doctor is not a party to it any more than the undertaker, etc." Exactly so, as the undertaker has no interest in the dead one so the contract doctor has no interest in the patient and, therefore, it is against the interest of the workmen.

Brown says: "It greatly increases the expense of the employer," thereby admitting that the employer is interested in the cheapness of the medical service.

Brown says: "This development [the contract doctor] started with skilled surgeons, etc.," and then he says, the past seven years, etc., many innocents have suffered through unskilled service.

Brown says: "These unskilled doctors who treated compensation cases have developed a specialty." A specialty of what? Is the injury of a compensation case different from any other injury that human flesh is heir to? Yes, it developed a special class of contract doctors, not for scientific purposes but for commercial purposes to the detriment of the poor workmen.

Brown says: "The law was passed for the welfare of the workmen," and when the laborer says it is for my benefit to have the choice of the physician, Mr. Brown says it will be against the interest of the employer.

Brown says: "The medical profession complains that the law does not insure them the right of free competition. That is the most of all their complaint." In other words, he accuses the medical profession of being mercenary. Then he says: It is surprising that the medical societies with their splendid traditions and fine ethical standards should foster such a program. Why not use common sense, Mr. Brown? It is because of the fine ethical standards that the medical societies are against the commercializing of the profession by the contract doctors to the detriment of the workmen! It is this fallacy of claiming specialism in

the surgery of compensation cases that the scientific profession objects to! It is to the false teaching that everyone is trying to help the workman, that everyone is the friend of the laborer except the family physician. The man who is entrusted with the health and life of the family cannot be trusted with testing the same man when he happens to be a case of compensation. The very thought of it is ridiculous! Mr. Brown's article consists of abuse and accusations against the medical profession without any justification. The very statement that the contract doctor is a specialist is at par with all special cults like chiropractics, naturopaths, the patent medicine faker, etc., who claim to be specialists in the healing art.

Brown says: "The doctors received a privilege in that it assured them their pay." This seems to be a paradox. The doctors received a privilege and they are fighting against it. The law was passed for the benefit of the workman, and the workman wants to have the choice of his physician. But Mr. Brown says neither the doctor nor the patient knows what is good for them. Consistency, thou'rt a jewel.

L. W. ZWISOHN, M.D.,

249 West 122nd Stret.

—N. Y. *Medical Week*, 4/15/22.

OUR COUNTY SOCIETIES

We have spoken of the carelessness, indifference or neglect of officials in the above editorial. These conditions are nowhere else so disastrous as in the County Societies and their correction there will greatly aid in maintaining our profession's standing and efficiency, thereby correcting other evils referred to. The Editor is no alarmist. He has been giving much thought to, and some close study of existing conditions and threatening dangers; service on the Welfare Committee and a recent item in the *Newark Evening News* have led him to write this editorial; the item is as follows:

Health Officer Craster of Newark has been appointed one of the committee to reorganize the American Public Health Association. At its annual meeting in Washington March 16 the governing council of the association decided upon this step after a majority of its members agreed with Dr. L. I. Harris of New York that the association was led and directed by corporate agencies in ever-increasing number. Dr. Harris also charged that such leadership and direction were a present detriment and endanger the future of the association.

There are some indications that the same condition is threatening the American Medical Association and we urge our members individually, and in their associated activities in the county societies, to do a great deal of

Intelligent Thinking and Planning,

and it would be well if much of the thinking and planning were done before we gather at our annual meeting next month. Probably that would lead to far better Action by the House of Delegates, where often

hasty action is taken because adequate time for careful thought could not be given.

We cannot here discuss existing conditions but we call attention to the following suggestions which need serious consideration: Every officer of a country society should know the duties of his office and should promptly discharge them.

Every county society should have a Welfare Committee of able men who have the welfare of the profession at heart and who will co-operate heartily with the State Society's Committee. Every society should have a full delegation at the annual meeting of the State Society. Every member should attend the meetings of his county society when it is possible for him to do so and should endeavor to make them profitable for his own and his profession's ability to serve his patients and the public.

The true physician, the ideal physician recognizes the splendid opportunities and great responsibilities of the organized profession. He becomes a member of it not for what he can get out of it but for what he can put into it. As we have before observed—Service and Sacrifice make him a worthy member of the noblest of professions.—*Journal of Med. Soc. of N. J.*, May, 1922.

MEDICAL POLICIES AND PROBLEMS CONTROLLED BY LAY ORGANIZATIONS NARCOTIC DRUG ADDICTION

LESTER D. VOLK., M. D., LL. B.
Member of Congress from Tenth District
NEW YORK CITY

The opening up of the narcotic question promises to be a medico-political issue of tremendous importance. In the past, the reason that the organized and manipulating few have prevailed over the honest many is by drawing their fire on false issues, small phrases and scattered quibbles. In the resulting confusion the real issues have been lost sight of and overlooked, leaving a free field for those with a special interest to accomplish their designs and to complete their plans. So long as the issues are kept within the medical profession, they can be fought out along proper lines. But the danger now is the attempt to transfer the issues outside the medical profession, place them on a non-medical basis, thus putting the doctors on the defensive against the public and their pseudo-medical, sociologic "uplift," "reform" and lay exploiters.

Within the medical profession there is now taking place an upheaval tending toward the overthrow of those at present in control, and placing the power in the hands of those who will faithfully and honestly reflect the views of the rank and file. And those in control, fearful of the time when their strangle hold upon the profession shall be broken, are turning to the medico-sociologic and other organizations, and moulding them to their own uses and in accordance with carefully laid plans. So that unless quickly accomplished, the victory of the rank and file over the special

interests represented by these small groups or rings will be an empty one.

For if the administration of medical policies and problems is controlled by lay organizations, lay administrators and in accordance with manufactured public opinion, representation in and control of medical organizations by medical men will be merely an empty fact while leaving nothing to administer.

* * * * *

The false issues brought forward as the policies (whether political or corporate), of our so-called leading representative medical organizations have blocked medical progress and are tending toward a condition of virtual medical slavery. Of these, attempted control of the medical profession in the handling of narcotic addiction is but one phase; we need but mention in passing that the prohibition question, the use of alcohol, light wines and beer, was handled in exactly the same way; group practice and State control of medicine are but different phases of the same plan.

Let the control of the profession once pass to the extra-medical forces, and the fight is lost, for the doctors will then find themselves in the grasp of the little groups or rings, working, either openly or unseen, with the lay organizations. The doctors will be stripped of power and have no say over their own destiny.

This is the main question today: Are the doctors going to permit themselves to be swept off their feet by the pseudo-medical and pseudo-scientific propagandists?

One of the rottenest medical scandals in medical history was the promotion scheme and exploitation of the narcotic drug situation begun by an insurance agent, the strength of whose propaganda and advertising came from the support given him by men high up in the councils of medicine and in positions of control and power in medical organizations.

The investigations of the Whitney committee (New York), placed things in their proper light and the resulting exposure halted activities along these lines. Since that time there has grown up a new coterie who have set themselves up as the all-knowing oracles in matters of narcotic addiction.

Intrigue, propaganda, publicity and administrative terrorism have taken the place of free medical discussion, scientific research and the known findings of medical and lay experience.

The profession must be distracted by no misleading issues. The narcotic question is of great interest, not only to the doctor but to the public and the nation as well.

The welfare of between one and two million persons is at stake; over sixty-one million dollars is spent annually by addicts for drugs. The loss in wages of unemployed addicts amounts to one hundred fifty million dollars yearly. This does not include losses thru theft and burglary, nor the cost of suppression and punishment of crime, nor the care and treatment

of those who eventually become a charge on the community.

This is an economic problem of tremendous importance which becomes more important as the medical profession loses its grip upon its control.

I have introduced a resolution in Congress asking for a full and free investigation on the subject of narcotic addiction, the method of handling and treatment by physicians, institutions and sanitariums, the effectiveness of the present laws, rules and regulations to control smuggling, trafficking and abuse of narcotic drugs, and for the purpose of drafting legislation for the control of this evil.

Because of the facts which I have mentioned about the condition of affairs within the profession, the great need for knowledge upon all phases of this complex subject, every doctor, every medical society and every unbiased agency and organization, looking toward a solution of this great problem should endorse this resolution.—*American Medicine*, April, 1922.

TRANSFUSION IN INFANTS WITH MALNUTRITION. THE USE OF THE SUPERIOR LONGITUDINAL SINUS

(Author's Abstract)

S. B. Burk and L. Fischer (*Med. Rec.*, vol. 100, No. 100, pp. 751-759, 1921), have made a thorough study of the above subject. They state that after careful search they were not able to find the use of transfusion in malnutrition recorded in any recent textbooks on diseases of children.

The indications for transfusion in malnutrition are noted as follows:

1. Progressive loss of weight and improper metabolism of food resulting in atrophy with a senile expression.
2. Cold extremities; heart sounds feeble; pulse thready and symptoms pointing towards a general exhaustion.
3. Catarrhal or fermentative colitis with dehydration of the blood, feeble pulse, and signs of imminent collapse.
4. Acute infectious diseases such as typhoid, prolonged scarlet fever, diphtheria, influenza or in post-pneumonic conditions wherein a secondary anemia follows.
5. General weakness in premature infants following a pre-natal disease as congenital syphilis, or a weakness due to improper food given by a tuberculous mother before the latter comes to the clinician.
6. Weakness due to tropical diseases.
7. The presence of avitaminosis in addition to the use of antiscorbutics.

Furthermore, maternal feeding affords the best known food. Despite maternal milk many infants are underfed. This deficiency can be supplied by giving complementary feedings of cream and carbohydrate—chiefly maltose. If the infant continues to lose weight and the extremities are cold, then we must direct our attention to the circulatory system. In marasmic infants we have tried hypodermoclysis. The injection

of four ounces of warm normal saline solution every 24 hours is oftentimes helpful. Warm saline colonic instillations given at a temperature of 105 to 108 degrees F. will in many instances add fluid to the circulation. Hypodermic medication such as adrenalin or strychnin fails to stimulate the heart action in many instances. In this class of cases the recourse to transfusions may be the only means of saving life. Although there have been excellent results in some cases, we have had failures in other cases.

After a detailed review of the method and avenues of approach to the circulation in children, the following observations are made:

There are four places selected for transfusion; (a) The median cephalic; (b) the median basilic; (c) the external jugular, and (d) the superior longitudinal sinus.

Attempts to enter the veins at the elbow or at the neck are not infrequently attended with great difficulty. Much valuable time may be lost in futile attempts. Exposure by cutting down on the veins subjects a weakened patient to the additional dangers of shock and infection.

In using the superior longitudinal sinus, all objectional factors are eliminated. Up to the age of two years to two and one-half, the anterior fontanelle lends itself admirably for this operation. The authors believe that the more simple the technic, the more readily it is carried out. They make use of the ordinary instruments and containers to be found in a doctor's office.

The following apparatus is used: One 30 c.c. glass syringe (Record or Luer); several 18 gauge 4 cm. needles; 1 ordinary glass jar or drinking glass; 1 glass stirring rod; 1 bandage or rubber tourniquet; 1 tube of sterile 25 per cent sol. sodium citrate; tr. iodine; 95 per cent alcohol; sterilize gauze.

Their opinion relative to the donors is stated in the following remarks noted: "It is well known that the use of indiscriminately selected donors may nullify the value of the transfusion or even be disastrous to the recipient. It is therefore necessary to select a vigorous, healthy individual with an approximately normal red blood cell count and hemoglobin content, whose history is negative for lues and whose Wassermann blood test is negative. No one with an elevation of temperature or convalescing from an infectious disease should be used. Moss recommends cardiacs as donors who have a normal blood count and in whom venesection may be indicated. When the foregoing qualifications have been fulfilled the dangers of incompatibility due to hemolysis and agglutination must be eliminated."

The hemolysis and agglutination tests are made according to the Vincent modification of the Moss technique:

Two prepared sera, a clean glass slide, and a number of clean toothpicks are needed to make the test. One or two drops of Serum II is placed on the left half of the slide, and an equal amount of Serum III on the right half of the slide. The ear or finger of

the person tested is punctured and a small drop of blood is transferred on the point of a knife blade or with a toothpick to each of the sera in turn. The blood is stirred into the serum. The blood should be transferred before the coagulation has commenced and care should be taken to avoid mixing the two sera. Agglutination of the corpuscles is accelerated if the serum is agitated by the slide being tipped from side to side. If the reaction is negative, the corpuscles make a uniform suspension in the serum. If the reaction is positive, the masses of agglutinated corpuscles usually appear in less than a minute and are discernible to the naked eye. Rouleaux formation can be eliminated if the mixture is stirred; agglutination is not broken up in this manner. The reading should be confirmed by microscopic examination.

In order to eliminate contamination in handling the blood and sera a different toothpick or wooden match stick is used in each step of the technique.

After obtaining the proper donor, the front of the elbow region is painted with a 3½ per cent tincture of iodine and a tourniquet applied just below the deltoid region lightly enough to cause the veins to stand out prominently but not so as to obliterate the arterial pulse. The median cephalic or medium basilic vein (whichever is more readily accessible) is then punctured, and a predetermined amount of sodium citrate solution is added to make a 0.3 per cent solution, the assistant constantly stirring the mixture slowly.

The recipient is prepared in the following manner: The infant is wrapped in a sheet, with the head exposed, and placed flat on the back while the assistant steadies the head with face upward, near the edge of the table. The anterior fontanelle is painted with a 3½ per cent tincture of iodine and the posterior angle of the fontanelle located with the index finger of the free hand.

The precautions observed at the time of injection of the blood are as follows: The citrated blood is drawn into the syringe with the needle attached. The needle is then slowly introduced into the posterior angle for a distance of one to two cm. parallel to the direction of the inner table of the skull. On entering the sinus, one gets the definite sensation of being within the lumen of a vessel.

This is similar to the experience in piercing the dura in doing a lumbar puncture. The operator steadies the needle with one hand and slowly injects the fluid. There should be no resistance in injecting the fluid if the needle is in the sinus. If resistance is met with, the needle is withdrawn and the procedure is repeated. When in doubt it is always well to withdraw some blood before the injection is begun. The injection of an ounce of fluid should take from 1½ to 2½ minutes. Pressure with a sterile piece of gauze over the site of puncture for a few minutes is all that is necessary for the after-care of the scalp.

Their end results as tabulated are:

1. Fourteen transfusions were performed on 10 infants.
2. The ages ranged from 9 days to 6 months. Seven were under 2 months of age.

3. The amount of blood injected averaged about 1 ounce.

4. The time of injection averaged about 90 seconds.

5. Four injections were followed by severe reactions; 7 by moderately severe reactions, and 3 by slight reactions. The severe reactions consisted of a short period of dyspnea which lasted about 25 to 40 seconds. A child who oftentimes cries lustily when the procedure is begun becomes suddenly quiet. Cyanosis of the face and pallor about the mouth appears about this time together with lateral and vertical nystagmus. The radial pulse remains unchanged. The child soon thereafter again becomes noisy and restless. The period of quietude lasts a few minutes.

6. A 0.3 per cent citrated solution was used in our transfusions without any harmful effects. This amount of sodium citrate facilitated the passage of the mixture through the small caliber of the needle with greater ease than with the 0.2 or 0.25 per cent solutions.

7. In 4 patients there was a marked improvement following transfusion; in 6 patients there was a slight improvement, and in 2 patients there was no improvement.

8. Feeding should be delayed for at least one hour after transfusion. Children fed before this time elapsed vomited.

In conclusion they state:

1. Transfusion of citrated blood is a simple operation and a recognized valuable therapeutic agent. Its use should become an everyday procedure in hospital and private practice.

2. Transfusion of blood is oftentimes a life-saving procedure in the treatment of diseases of the hematopoietic system. The so-called hemorrhagic diseases of children are greatly benefited by this operation.

3. Transfusion of blood is valuable in the treatment of malnutrition. It is valuable in treating the cachexias following the acute infectious diseases.

4. Transfusion of blood improves the general condition of patients with gastro-intestinal disturbances who do not improve with formula feedings or with the use of mothers' milk. This is particularly noticeable when marked dehydration is present following failures after the use of hypodermoclysis, rectal instillations and venous infusions.

5. Transfusion improves the prognosis in premature infants.

6. Transfusion of blood is best performed in infants by using the superior longitudinal sinus because of its large caliber and its superficial location.

The text is illustrated with seven figures including three photographs, a tabulated summary and 78 references to literature.

SHALL NURSES BE PROSECUTED FOR PRACTISING MEDICINE?

Considerable interest has been aroused concerning the problem presented by nurses who have been treating injuries without having secured attendance by physicians. This matter has been frequently referred

to by physicians who have felt that nurses have assumed responsibilities not warranted under our laws, and in some instances doctors have felt that the activities of nurses have in a very definite way invaded the field of medical practice, although the nurses have been sufficiently warned. Since the alleged practice of medicine by nurses has seemed to be on the increase, there has been no reason why the authorities should decline to act. The Board of Registration in Medicine has tried to bring about compliance with the law without resorting to drastic measures, but reports of questionable methods have become so common and demands for action have been so insistent that it became necessary to report the facts in two recent cases to the prosecuting authorities.

Previous to the cases referred to, complaints were dealt with diplomatically, for it seemed probable that in most instances there had been no defiance of law and no harm had been done beyond displacing the doctor, and because the patient suffered no injury, nurses and patients have felt that no serious question was involved. But laws are enacted to be obeyed and until repealed should be upheld by all loyal citizens. Very few would agree that a bank official, who made an investment contrary to law, even though no financial loss resulted, should not be reprimanded by the bank examiner, and if the irregularity was continued most people would uphold the authorities who felt obliged to take action which would prevent repetition. Preventive measures should be employed before definite injury is done.

The whole question is complicated and delicate, but it can be solved by the nurses themselves, even though managers of industrial plants and some physicians try to induce nurses to practice medicine, either as a convenience or to save expense.

The general purpose of the laws governing medical practice is to protect the patient from incompetent service, and nurses should observe the requirements because it is a law and also because sooner or later some nurse may attempt to render a service which is beyond her ability.—*Boston M. & S. J.*, April 6, '22.

SOCIALIZED MEDICINE IN ENGLAND

The public press of England is furnishing some illuminating information about the workings of their so-called health insurance laws and particularly as to the sorry plight of both the public and profession in a country where State medicine of the government variety is so generally in force. We read that the Medical Practitioner's Union, after passing a resolution fixing an irreducible minimum fee at 13s 6d, were forced by arbitration to accept 11s as a "minimum wage." It seems that the government is about to try to force a still further reduction on the ground that other union wages are being reduced. The public, of course, is objecting to the amount of the capitation tax, and everyone is just about as unhappy as they might be expected to be under the state administration of a great personal service profession. Not so long ago, the profession of England gave to the world

constantly of its progress in the medical sciences. Fakers of various sorts and walking delegates seem to have most of the limelight now. Perhaps the most significant phase of the discussion is the general and drastic criticism of the powerful and expensive machine that has been built up for the administration of their intricate political law for the care of the sick. We are told that there is another side to the picture, but we are also told that this other side is sponsored only by those who are interested parts of the machine. —*California S. J. of M.*, April, 1922.

LARGE DOSES OF ALCOHOL IN THE TREATMENT OF ACUTE NEPHRITIS

The art of therapeutics is filled with paradoxes and inconsistencies and to paraphrase another proverb "what is one man's poison may exceptionally be another's cure." Ever since chronic interstitial nephritis became known in England as "spirit drinker's kidney" it has been taken for granted that alcohol is eminently a nephrotoxic substance. About a score of years ago a German whose name escapes us allowed subjects with chronic parenchymatous nephritis a ration of alcohol and announced that the percentage of albumin was not increased by one ounce daily of this substance, corresponding to two ounces of spirits. However, as he observed at the time, the drug served no useful indication in Bright's disease, so that the only interest to the practitioner was academic. According to the late Egbert Lefevre a spree by a subject with this affection is apt to precipitate a crisis of uremia which may prove fatal. So far as we know there has been nothing in medical literature with the exceptions to be noted later which would justify the drinking of alcohol by a nephritic subject. But very recently Dr. Barnardino Masci, a practitioner of Rome, has placed on record the singular fact that a victim of acute hemorrhagic nephritis who became intoxicated, so far from suffering an aggravation of the malady actually recovered. This patient was not a man but a thirteen year old girl, who had developed a nephritis from exposure, which is described in detail. Being dissatisfied with the meager amount of food allowed her she surreptitiously drank from a bottle of brandy enough to intoxicate her. About thirty hours later she was seen to improve, began to void urine freely, the edema cleared up, and a report by a pathologist some hours later told that neither albumin nor formed elements were present. The report appears in the *Revista Ospedaleria* for December 15, 1921, xi, 23.

Ordinarily such an experience at the hands of a practitioner would not be taken too seriously. It may be that this girl would have recovered spontaneously. Alcohol of course possesses notable diuretic action in health but is hardly equal to overcoming a condition of persistent oliguria. It was only the occurrence of another case in the practice of the author that attracted his serious attention to the remedial use of alcohol in early nephritis. In another case the patient had suffered from this affection for four months, and was on a meagre salt-poor diet with wine practically

cut off. The hopeless outlook of the case suggested allowing an indulgence of wine and the patient took advantage of this up to the point of intoxication. This was not repeated, but the subject began to improve and within a week oliguria had been replaced by normal passage of urine. The pathological report showed that the urine had become normal.

In the course of a perusal of the *Muenchener medizinische Wochenschrift* for August 15, 1919, Masci was startled to find an article by Bischoff which was based on some animal experiments. The latter appear to have suggested that alcohol, so far from being a bugbear to the nephritic, might actually be indicated in the treatment of acute glomerulonephritis. Such a change of front recalls the treatment of typhoid in which the fasting regimen was eventually succeeded by various degrees of feeding which culminated in the high calory diet of Coleman. Further one may recall the former prohibition of opiates in uremia until Loomis showed that morphine injections did not aggravate the condition, but on the contrary diminished the severity of the convulsions. The second case of the author given above was reported at the time in *Il Policlinico*, 1920, number 29. To sum up his position salt-poor diet and the balance of the modern treatment does not save these patients, so that we are justified in making use of anything which holds out hope of cure, and alcohol might be fairly tested, in countries where pure whiskey or brandy is obtainable, in acute and subacute nephritis which has proved refractory to other management.—*Medical Record*.

75 ON MEDICAL FACULTY TO GO

DEAN OF DETROIT COLLEGE PLANS CHANGES TO AID CITY INSTITUTIONS

The following is from the *Detroit Journal*, May 11, 1922:

When the Detroit College of Medicine and Surgery begins its new year next September it will be on the map as a top-notch institution of its kind among all those in the United States, says Dean W. H. McCracken.

Acting under the direction of the council of the American Medical Association, Dean McCracken says he will take steps within the next six weeks to remove about 75 members of the non-salaried members of the faculty from the teaching staff.

This will be done because the A. M. A.'s commands for complete endorsement of a medical school require that there be no "padded faculty" and that every member of it give his full time to his duties. Also the city has so shaved appropriations for the school, which is under the direction of the board of education, that it may be necessary to dismiss a few salaried members of the staff, says Dean McCracken.

Anticipating the criticism that will emanate from medical circles over this proposal, Dean McCracken says that ever since the policy was adopted of withdrawing from the private hospitals of the city and turning to Receiving hospital for teachers, also plac-

ing students there for their work as internes, the so-called "old guard" of the Detroit medical fraternity has been "down on" both himself and the school.

But Dean McCracken says he has the approval of high state medical authorities and the O. K. of both President Marion L. Burton and Dr. Hugh Cabot, medical dean of the University of Michigan, for all his plans as to the future of the Detroit school. A fifth year will be added to the course, consisting of work as an interne, starting next Fall and every effort will be made to turn out students who are fully grounded and entirely adapted mentally to be doctors.

WHY SHOULD PHYSICIANS HEAD 1921 SUICIDE LIST?

The striking fact in the mortality figures for the year 1921, as estimated by the Save a Life League, is that physicians lead the list of suicides. According to these figures, classified according to professions, eighty-six doctors, fifty-seven judges, thirty-seven bank presidents, twenty-one clergymen, ten editors, seven mayors and seven members of legislatures took their lives. The bare figures, which we assume are quite trustworthy, present a problem, the solution of which is certainly not at once manifest. One can explain the suicide of judges and bank presidents and even of clergymen with little trouble; in the first instances, revelations of the misadministration of justice and mismanagement of trusts; in the other instances, private transgressions in severe conflict with the dictates of religion. But why should physicians head the list among the professional men? Malpractice among the profession, even if we should admit it to be common, is rarely a motive for suicide. The bank president is often, unwittingly and unwillingly, led into financial combinations which promise much and end in disaster, with suicide as the only escape. Clergymen, led by the seductions of the flesh to ignore the dictates of religion, may see in suicide the one exit open to them. But the malpracticing physician is not so much the victim of circumstances as of his own corrupt mentality, and such a mentality rarely accepts suicide as a solution. It prefers the risk of a trial and possible acquittal. What, then, can be the common, underlying motive which, in 1921, drove eighty-six doctors to the taking of their own lives?

The suicide figures, with a total of 12,000 accounted for and 20,000 estimated in all, present further food for reflection in the great number of child suicides, more than 1,000. Many of these cases, of course, can be accounted for by the severe crisis presented by puberty, and it is more than likely that the majority of the child suicides ranged from twelve to sixteen in years. But 1,000 is a very large number, and it speaks rather ill for either American educational guardianship or the vigilance and devotion, intelligent devotion, of parents. There is also the unique case on the list of a centenarian and a child of five. The vast majority of all the suicides reveal financial difficulties as the dominant motive, and it is perhaps here that one may find a clue to the large number of physician sui-

cides as well. The struggle to maintain a social standing commensurate with his professional responsibilities and connections, once it begins to appear hopeless through a decline in income or a falling away of practice, may have been a determining factor. The question of money, unfortunately, plays much too important a role in modern society, and yet, though the lack of it accounts for the suicide of the vast majority of those who died by their own hand, the ample possession of it did not prevent seventy-six millionaires and thirty very wealthy women from committing suicide.—*American Medicine*, April, 1922.

Correspondence

THE CUT RATE MEDICAL MAN

Chicago, Ill.

To the Editor: Even "the flowers of the field" do not excel in glory the doctor who will meet an acute condition threatening the very life of a patient in spite of immediate action and go in to with might and main regardless of the patient's age, sex, creed or financial circumstance, ready to devote every bit of knowledge in him to the salvation of that life. Many an unheralded act of real Christian charity has consisted of just such devotion to divine duty by the doctor and too little appreciation is shown to the self sacrificing energy displayed by the *genuine* physician in ministering to the body in need.

But that is neither here nor there and besides, we are going to talk of the *wherewithal*. This is to be a note to the cut rate man whose dictionary probably does not define *charity* and it may as well be to the point. The abuse of the dispensary has been taken up in many articles and more books till we became blue in the face "seeking the remedy for the evil thereof," so let's take leave of that and let me cite you just a couple of cases of many under my recent and present observation to illustrate the demoralizing effect a lot of damned foolishness can have on the practice of medicine and the obstacles it can put in the way of the doctor who of necessity or otherwise must get at least a living wage for his labor. Has not the practice been hard enough and has it not been enough of a battle to educate the people that the doctor must be paid for his as well as the butcher and the tailor without some unscrupulous and unethical man come along and fill his office with and encourage a lot of spongers and deadheads? (I am not mentioning the rarity of cures at all. If these people eventually

go and spend good money elsewhere it must be because they like to spend it.)

CASE 1.—Woman 30 years, stenographer, no dependants, salary \$35.00 a week. Treated by M. D. in the loop, for three months. During the course of treatment she was taken sick at her room where the M. D. visited her twice and from where he took her to a hospital in a taxi of his own hire; visited her there for a week following which office treatments were resumed.

TOTAL: 30 office visits
About 6 hospital calls
2 house calls
1 taxi
CHARGES \$20.00

The story was brought to me upon refusing to treat the patient except for a fair fee and a cash basis who was wearing a thirty dollar sweater and carrying a twenty-five dollar purse not big enough to hold more than two dirty handkerchiefs and a powder rag.

CASE 2.—Woman married, employed at good salary, husband also continuously employed at good salary, no children, appeared recently upon the scene of my labors and told the following about her M. D. (the same one as in CASE 1). Went to his office daily (except Sundays) for a month, then three times a week for three more months for gynecological trouble. During the course of treatment was taken to the hospital for removal of tonsils which his confrere was asked to and did for *nothing* on the grounds that she was a working girl. The total charge for all that was thirty dollars.

Now, if perchance this note should fall into lay hands they will not accept it at its face value but surely to the doctor who is loyal to his fellows, is it not most foolish, ridiculous and nonsensical to dig up an already rough road by letting them off so easy when their income is large and they have so much to spend for their persons otherwise?

Philanthropy is a splendid thing and a mighty thing but when in doing it if we are playing into the hands of the piker and not doing a thing to put an end to foolish spending for foolish things at the expense of fair and legitimate fees it surely ceases to be a virtue.

It's time you should wake up, Brother M. D., and realize that the bricklayer and the carpenter are putting it all over you and getting theirs.

31 N. State St.

A. R. CARON, M. D.

WILLING TO MEET THE CONSEQUENCES
WITH NEITHER FEAR NOR TREMBLING.

I SUCCEEDED IN WHAT I STARTED
OUT TO DO.

Newark, N. J., May 6, 1922.

To the Editor: I am enclosing herewith my check for \$3 for one year's subscription to the ILLINOIS MEDICAL JOURNAL. It is the best medical journal I have ever read and other medical journals throughout the U. S. would do well to copy your methods championing not only the welfare of the medical men but also that of humanity as well.

Most of the journals continue to bore us with a lot of insignificant papers and discussions by equally as many insignificant men who not only like to hear themselves talk at medical meetings but make sure they will give no one else a chance who might have something more important to impart to the attending members than they.

All the while these worthless discussions are going on many vitally more important things are taking place insidiously but surely to the detriment of the medical profession, all the members thereof and humanity in general, as a result of the indolent action of the members of our great profession and the vile work of the pernicious politicians who at all times are trying to limit the functions of the medical men and bring them more and more under their control, together with the help of some Benedict Arnold medical men who are willing to sell their birthright for a mess of pottage.

However, there are a few of us, thanks to the ILLINOIS MEDICAL JOURNAL and a few other good strong characters, that will give the scheming politicians a good run for their money and beat them out in the end for those of us who have some good American red blood left in us are not afraid to fight for what is right both within and without the medical profession.

I for one was obliged to call a halt on the dirty literature circulated throughout the state of New Jersey by the Chiropractors, for which act I am being sued by them for a large amount of money, but I succeeded in what I started out to do and am willing to meet the consequences accordingly with neither fear nor trembling.

The editorial of M. F. G. in your April number was a wonderful piece of work, and the writer need not be so modest as to sign his initials for

those of us who have our medical profession at heart agree with him thoroughly and consider his remarks well and completely made.

There are some comments in your journal concerning the value of the full time medical professors, and I am happy to state my college days were drawing to a close just as they were introducing full time teachers in our medical school at old Bellevue Hospital Medical College, N. Y. U. I had a chance to observe the great mistake being made in losing those good practical teachers who knew how to put into practice the knowledge they possessed and to lead the trusting students over many dangerous pitfalls safely. These were such men as the late Drs. Egbert Le Fevre, professor of therapeutics, and Julius Becker, professor of anatomy, both of whom the students all loved, honored and respected as teachers of great ability, sincere and determined to fit their students with the fundamental knowledge of their respective departments so that the students would be well equipped to treat the ills of suffering humanity and not experts in the ailments of bullfrogs, monkeys, hoptoads, turtles, cats, dogs, etc. It was my pleasure to be under the tutelage of the above mentioned professors, and I thank God for it, as I valued their teachings most highly and appreciate them more now than at the time I was receiving their instruction.

There is a place for both the laboratory worker and the bedside clinician, and neither would care to trade places with the other nor would such change be beneficial to either or all concerned; therefore, I fail to see why an experienced surgeon having a good outside practice and plenty of teaching ability with an extensive knowledge of anatomy which is a necessary equipment to a good surgeon, should not be allowed to teach either anatomy or surgery, whichever he is qualified to teach without having to become a full-time teacher and thereby discard his valuable practice which was really the cause of his being a better teacher.

We have the group practice bug before us now which is an outgrowth of the lazy doctor who neither has time nor courage to examine each and every patient as he was taught to do, but rather passes over the patient quickly, and after receiving his fee, like the barber, says "NEXT," thus referring him to Dr. Tom, Dick, or Harry.

for further examination, which gentlemen in return finish by taking all but the patient's shirt, and tell him to return when he needs more treatment, provided he has any money left, and if not he is out of luck for the Rockefeller Foundation has failed to make any provision for his case as yet.

The pay medical clinics at some of our first-class medical colleges are in for a good panning, and I hope they get plenty of it, panning I mean, as they well deserve it. Let those same schools run a good honest to God charity clinic and they will be doing all that is required of them for those of us who have had anything to do with them know full well there is plenty of room for improvement right there and sufficient reward will be merited if the charity clinics are conducted properly.

The real purposes of the wealthy foundations such as Rockefeller and Carnegie are becoming known now, and the outlook, if they prevail, is not so good, but thank goodness, we have reason to believe they will not even make a ripple in the stream of this great universe. After all is said and done, and all hands awaken to their real meaning, they will take their proper places along with other public utilities and not as controlling factors as heretofore.

Another condition coming to the fore nowadays which appears very gratifying to me is the number of private hospitals starting in various localities, which means the young men graduating from reputable medical schools and having finished an internship in some good hospital, look about for a place to send their patients, where they may be able to perform some serious operation for the benefit of their patient, as well as their own benefit, and being refused admission to the closed corporation hospitals, excepting as a silent visitor in case they send their patient in for some other doctor to operate, under which condition he bids the patient good-bye forever, and goes forth bemoaning his loss at not being on the staff of said hospital, but thank goodness, there again the worm has turned, and the modern young physician and surgeon with knowledge and ability to operate and treat cases properly no longer stands for the bulldozing methods of the oldtimers, many of whom should have been relegated to the dump heap long ago, judging from their antiquated methods and lack of knowledge and poor surgical judgment even

after many years of hospital work not only in one but many hospitals. They had plenty of quantity according to the material used, but their ability as surgeons is so inferior that quality in their work is vastly lacking and these are some of the men who hog positions on the closed hospital staffs, thereby keeping many other men of far greater ability off, and causing them to establish independent open institutions that are always busy and in demand, while the closed staff hospitals run by a "*select few*," have plenty of vacant beds which they can ill afford nowadays, but the governing boards of the closed corporations are gradually getting wise to modern conditions, and when they see private hospitals filling up and their own empty they realize there are other doctors capable of doing good work beside their select few, and many heretofore closed hospitals are becoming more modernized by closing their ears to their whole-hog surgeons, and for self preservation, chiefly, are opening their doors to the reputable doctors who seek admission, which is a sign of civilization progressing.

I just received word that the suit the chiropractors are bringing against me for calling them *quacks* and *fakirs* publicly will be tried in the county court in a couple of weeks and the stage is all set for said trial. Someone had to lock horns with them in order to check them, as they are multiplying like vermin in this part of the country and becoming more obnoxious every day in every way; hence I considered it was up to me to call a halt, since no one else saw fit to check their menacing ways toward both suffering humanity as well as the honorable medical profession, but I am well prepared, and don't think I'll have any trouble proving my assertions, and if there is any additional data you can send me I shall be pleased to receive it.

There were a few things that I wanted to get off my chest, and as your journal seems so progressive, thought perhaps my opinions would have the best result if expressed to you, hence this letter, and hoping it did not bore you and thanking you again for sending me the JOURNAL, which I consider a very valuable paper for the welfare of the medical profession in general, as it fights its cause so well while more of its members are asleep. Yours sincerely,

526 Sanford Ave.

W. A. TANSEY.

THE PHYSICIAN HIMSELF

Baltimore, Md., April 5, 1922.

To the Editor: The book on "The Physician Himself," of which I am the author, has been out of print for nearly three years.

In view of the widespread good it has done our guild as a unit, and its usefulness to the individuals who possess it, The F. A. Davis Co., for a small money consideration, returned its copyright to me more than a year ago.

Glad of the chance to use my pen on it again, I have given it a searching farewell revision, eliminating much that was obsolete, and adding a great deal that is useful in an attempt to make it as pure, refined and clear cut as the classic. I have named this "The Crowning Edition." It was issued from "The Lord Baltimore Press" yesterday and a copy for you is already in the parcel post. I hope you will scan it closely.

I trust its unique theme and useful mission may mingle with your other thoughts. . . . The expense of producing the book has been far greater than expected, but if its sales bring me out even, I shall be satisfied.

Very sincerely yours, etc.,

D. W. CATHELL, M.D.

Emerson Hotel, Baltimore, Md.

TREATMENT OF LYSOL POISONING

CORRESPONDENCE

Peoria, Ill., May 23, 1922.

To The Editor: Anent Dr. O. B. Ormsby's case of lysol poisoning reported in the May issue of the JOURNAL. The best treatment in two cases I had was as follows: I was able to see the cases soon after taking the lysol. Wash out the stomach with diluted whisky or alcohol 25% and afterwards with water, then give a dose of sulphate of soda in order to empty the intestinal tract in the hope that it exercise some influence as an antidote. Alcohol, magnesium sulphate and sodium sulphate have been recommended. Alcohol will rapidly dissolve the phenol and will therefor immediately dilute the poison and aid an emetic before the poison is absorbed. Strychnine or other stimulants should be given to overcome the depressant action on the vital centers, and demulcent drinks such as milk, flaxseed tea,

white of egg, etc., should be given to overcome the corrosive action.

Lysol is a proprietary article said to contain alkali compounds of the higher phenols with the fat and resin soap; antidote should therefor be about the same as for carbolic acid.

A. B. BARKER, M. D.

IS ANNUAL RE-REGISTRATION
NEEDED?

Editor, Public Forum: I was certainly amazed at your editorial favoring annual re-registration of physicians. There is an era of legislative hysteria now infesting the country, and a new form of insanity has arisen which, for want of a better name, we will call reformomania. I regret deeply to see that your editor has fallen a victim to the disease. The symptoms of the disease are the desire to pass some foolish bit of legislation that is supposed to immediately act as a panacea and instantly cure all the vices and crimes of mankind—a veritable legislative "Swamp Root" or "Snake Remedy." As soon as the legislation is passed wrongdoers are supposed to automatically melt into dust or "silently, like the Arabs, fold their tents and depart." Our Harrison Act reformers, our prohibitionists, our Sheppard-Towners, our Compulsory Health advocates each think they would accomplish the millennium. Results have failed to bear out their prophecies. Now comes our male Cassandra, the editor, who thinks he can in some magic way eliminate charlatans by another foolish law. He expects us to take his word for it and fails to give one logical argument as to how this result can be accomplished. His Lenine-like predictions could never result in anything but disaster if carried out.

Let us see what would happen. A medical license is now issued after a rigid examination, and is now good for the remainder of a physician's life, and revocable only for the commission of a felony. Under the proposed legislation, it will be a year to year proposition, and a physician's license might readily be revoked by a frame-up upon the part of blackmailers. Instead of, as now, being regarded as a learned profession, we would be degraded to the level of cab-drivers, saloon keepers and masseurs. Furthermore, it would be the entering wedge for compulsory

health insurance and, if a physician's license could be revoked at the end of any calendar year, this fact could be used as a club to make us all serve as panel physicians, and twenty-five cents per office call and fifty cents per house call. Our editor asks us to take his word for it that this could not happen. Yet it did happen in England and Germany and our American Federation of Labor is trying its best to bring it about here, and, as soon as it has a sufficiently strong lobby, will undoubtedly accomplish this purpose. Our medical society, which we rely upon to protect us against this very thing, seems to be playing into the hands of the Bolsheviks, and calmly suggests giving away our trump card. It is not surprising that a few thinking men become disgusted with our medical societies and form Medical Advisory Committees and Medical Guilds. These would not be necessary if our medical societies actually sought to serve the wishes of the majority.

Lastly the most dangerous quack is the man who is a graduate of a reputable medical school but goes into the more lucrative field of the advertising game. Witness our "I cure where others fail," our "Electro-Medical Specialists," etc. These worthy gentlemen would readily comply with the proposed law and advertise the fact, and thus strengthen their position. Every foreign language newspaper is nauseous with the claims of many of these individuals, and some of our respected (*sic.*) New York dailies also contain them, in opposition to the law.

We have an efficient law making it a felony for chiropractors, mechanotherapists, naturopaths, sun healers, etc., to practice unless they possess a medical degree and pass the State Board requirements. The few quacks who have no degrees of any sort and pretend to be physicians could readily be dealt with under the present law. The chiropractors, etc., likewise. What we need is proper enforcement of existing laws, and not foolish new laws. By what conceivable means the proposed legislation could be of any benefit whatsoever it is impossible for any person possessed of average intelligence to see. Will the editor please try to enlighten us? Meanwhile, let us physicians nip this piece of sovietism in its bud, and inform the editor that

his personal view on the matter is in no wise representative of the sentiment of the medical profession.

LUCIUS F. HERZ, M.D.

441 West 44th Street, New York.

April 15, 1922.

NEW REGULATIONS TO RESTRICT LIQUOR BLANKS

New regulations further limiting the use of liquor prescriptions by physicians are said to be in preparation by the Treasury. It is said they will accord with the Willis-Campbell bill prohibiting beer as a medicine and limiting the alcohol which may be prescribed to one-half pint in ten days and the number of prescriptions allowed to a physician to 100 in three months. The Treasury is understood to be considering a change in the definition of a liquor prescription to extend that classification to cover prescriptions issued for medical compounds of which alcohol is an ingredient as well as a prescription for a regular alcoholic liquor.

Society Proceedings

ALEXANDER COUNTY

The Alexander County Medical Society held its regular monthly meeting April 20.

The essayist for the meeting was Dr. J. M. McManus and the subject of his paper was "The Relation of Scientific Medicine to the Law Makers of Illinois."

After general discussion of the paper a resolution was offered and unanimously adopted, embodying the ideas and recommendations expressed in it. The resolution further directed that the recommendations be submitted to the Council of the State Medical Society with the request that if deemed feasible by that body some action be taken to have the plan considered by the House of Delegates of the State Society. The resolution follows:

WHEREAS, There is at present no adequate organized effort to impress upon the law makers of Illinois the aims, principles and needs of scientific medicine.

Be it Resolved, That the Alexander County Medical Society expresses itself as favoring the formation of a State Legislative Committee, the personnel of which to consist of one member from the Public Health and Legislative Committee of each County Medical Society. That it shall be the duty of this committee to gain information regarding the attitude toward medical legislation, of candidates for state legislative and other public offices, and to communicate this information to the different County Medical Societies.

That it shall further be the duty of the committee to keep in touch with our state legislators, through competent representatives continuously in attendance at sessions of the General Assembly, for the purpose of making clear to the law makers the achievements, aims and needs of scientific medicine.

That a copy of this resolution be submitted to the

Council of the State Medical Society, with the request that some action be taken by it to have the plan outlined in the resolution, considered by the House of Delegates.

Dr. W. F. Grinstead was elected delegate to the state meeting.

B. S. HUTCHESON,
Secretary.

CARROLL COUNTY

The regular meeting of the Carroll County Medical Society was held May 11 at Mt. Carroll.

The meeting was preceded by a lunch prepared for the occasion. Election of officers followed. For 1922 Dr. H. R. Sword, Milledgeville, president; Dr. S. P. Colehour, vice-president; Dr. J. I. Mershon, secretary-treasurer; Dr. W. W. McGrath, Delegate to the State Meeting.

Dr. Ellingsworth, Managing Officer of the Watertown State Hospital, gave a very interesting paper relative to the purpose and conduct of the institution. Dr. R. W. McNealy of Chicago talked on "Hernia" and gave us many practical points on the subject. Dr. Sword read a good paper on "Angina Pectoris." All papers were freely discussed.

Following an invitation of Dr. Ellingsworth the Society as a body will make a trip to the Watertown Hospital in June to be the guest of the institution for a day.

Resolutions were passed condemning the Sheppard-Towner Bill, State Medicine in all its phases.

During the discussion much favorable comment was given the JOURNAL for its attitude in protecting the "small fry" in the battle going on in Michigan. It was suggested that perhaps if the same tactics were used against a very popular institution in Minnesota, which reaches out to grab everything and anything from the country practitioner, they might at least keep us informed about what they do to our patients after stealing them. Their reward so far has been all that the A. M. A. could hand them.

J. I. MERSHON,
Secretary-Treasurer.

CASS COUNTY

The following officers were elected by Cass County Medical Society, March 2, 1922: President, Dr. Walter C. Bly, Beardstown; vice-president, Dr. Howard B. Boone, Chanderville; secretary, Dr. W. R. Blackburn, Virginia; treasurer, Dr. C. M. Hubbard, Virginia; delegate, Dr. T. C. Charles, Beardstown; alternate, Dr. C. E. Soule, Beardstown; censor, Dr. G. H. Vernon, Beardstown.

W. R. BLACKBURN,
Secretary.

COOK COUNTY

Joint meeting of the Chicago Medical and Chicago Dental Societies, May 3, 1922.

1. Lantern Slide Demonstrations of Oral Surgery Cases. Herbert A. Potts.

2. The Development of the Human Denture and General Health.

Abstract: (1) The mechanical arrangement and aesthetic design of the human denture. (2) The forces which contribute to its development. (3) The interrelation of factors in its development. (4) The first permanent molar. (5) Normal and vigorous respiration. (6) Nutrition and internal secretions.

Frederick B. Noyes.

3. The Treatment of Congenital Harelip and Cleft-Palate. (Illustrated.)

Abstract: Operation to be done at the earliest possible age, after the child has become oriented. In the first instance, the case is a medical one. Method of feeding and diet formula of paramount importance. Discussion of the technique for the proper reconstruction of the bony arch, nose, lip, etc. Post-operative care.

Frederick B. Moorehead.

General Discussion.

Regular meeting May 10, 1922.

1. Consideration of Carcinoma from a Statistical Standpoint. Lantern Slides.....A. J. Ochsner
General Discussion.

2. General Hospital Care for Acute Mental Patients.
.....Chas. F. Read, State Alienist
General Discussion.

DE KALB COUNTY

April 27, 1922, the De Kalb County Medical Society, with twenty-six present, met at the Tubercular Sanitarium on Sycamore Road.

Following a splendid dinner served by Mrs. Estrid Miller, the matron, and her assistants, the following program was rendered:

Miss Rachel Jackson, the American Steel & Wire Co. nurse, presented for diagnosis two cases of glandular involvement and one of anterior curvature of the spine, which Dr. Rice was not sure were tubercular. A fourth case presented by Miss Jackson was one in which there was extensive involvement of the eyes, the skin, and the glands of the neck. Dr. Rice pronounced this case as undoubtedly tubercular. He advised that the patient be excluded from school and placed in the sanitarium.

Mr. C. E. Bradt, one of the directors of the sanitarium, advised us that the sanitarium doors were open to the tubercular patients of the doctors. A survey of questionable value made several years ago showed about 400 cases of tuberculosis in the county at that time, while now we had only nine cases in the sanitarium. The discussion which followed showed that some cases refused to go there on account of its being a charity institution; others were afraid of being lonesome after they got there. Some patients felt that their consent to go to the sanitarium was an acknowledgment that their case was a hopeless one. It was also brought out that some cases might be better treated outside of the institution. A preventorium might be better for tubercular children where the lungs were not involved, than a sanitarium.

Imas P. Rice, M. D., of Aurora, who is the director

of the Kane County Spring Brook Sanitarium, told of some of the problems of his institution. He brought out that the success of the sanitarium depended on the co-operation of the physicians of the county. He thought that any medical institution should have a physician as its chief.

Dr. R. G. Dakin of Sandwich gave us a fine paper on the "Relation of the Individual Physician to County Public Health Measures." Dr. Dakin thought the director of the sanitarium should communicate from time to time with the physician sending in a patient, telling him the progress made in his case, conditions found at time of entry and dismissal, etc.

Dr. J. Stanley Brown, president of the State Teachers' College, was a guest. On being called upon he told us what a fine thing the sanitarium was for the community, provided we made it do its work.

Moved and seconded that the De Kalb County Medical Society stand back of the tubercular program of De Kalb County. Carried.

A rising vote of thanks was given Dr. Rice and the sanitarium for their entertainment and hospitality. Meeting adjourned.

CLIFFORD E. SMITH,
Secretary.

HENRY COUNTY

A very successful meeting of the Henry County Medical Society was held May 4, in the Art room of the Kewanee Public building, the occasion being the regular spring meeting of the society. Fine weather and good roads made possible a large attendance.

At 11 o'clock the business session was held, Dr. H. L. Fischer, president, presiding.

Reports of the secretary and treasurer were read and approved, the reports showing the society to be in a fine financial condition. Other routine business was transacted, and the society went on record as favoring the passing of a state law to enforce the registration of births, this movement being backed by the State Board of Health. The system in operation at present is inefficient and failure to register births is often due to the fact that the names of town clerks are unknown to either the attending physician or the parents of the child. For example, Kewanee physicians are called to half a dozen or more neighboring townships, and as the names of the clerks are often difficult to secure, failure to register the births results. The new law as proposed will overcome this defect.

It was decided to increase the state and county membership annual dues from the present fee of \$5 to the new rate, \$7.

A resolution was introduced by Dr. A. F. Benson of Galva, asking for a law with provisions for caring for drug addicts, separately from insane patients. This is not provided in the present laws. The resolution also provides for the commitment of known drug addicts to state institutions, and no voluntary patients are to be admitted to such state institutions. The resolution was unanimously adopted.

Officers were elected as follows: President, J. H.

Oliver, Kewanee; vice-president, A. F. Benson, Galva; secretary-treasurer, C. P. White, Kewanee; censors, Dr. Parsons, Geneseo; H. W. Waterous, Galva; J. E. Westerlund, Cambridge; delegate for two years to state meeting, C. P. White Kewanee; alternate, J. A. Gustafson, Orion.

At 12 o'clock noon the meeting adjourned to the Parkside hotel for luncheon. The scientific program was held in the Art room of the library at 1:30 o'clock.

JERSEY COUNTY

The Jersey County Medical Society met May 3, 1922, with Dr. A. B. Curry, president, in the chair. As we had no meeting in April, our election date, we held it today. The following were elected and appointed: Dr. A. B. Curry, president; Dr. L. J. Giers, vice-president; Dr. B. M. Brewster, secretary-treasurer. Board of Censors, Drs. Gledhill, Baecht and Threlkeld.

Our past president, Dr. A. B. Curry, was elected to attend the Illinois State Medical Society in Chicago.

The members of our society agreed and were anxious to furnish patients for a clinic to be held in Jerseyville about June 15th by the Jersey County Tuberculosis Association.

B. M. BREWSTER,
Secretary-Treasurer.

Marriages

M. ARISTA BINGLEY, Chicago, to Miss Annie Hocking of Burnley, England, April 28.

CLARENCE A. JACOBSON, Chicago, to Miss Vida Wheeler of Enid, Okla., at Kansas City, April 29.

Personals

Dr. James W. Pettit has been elected president of the Ottawa Memorial Association and was also appointed on a committee of the Veterans Bureau to advise on the hospital needs for tubercular veterans.

Dr. Omar F. Barnes was recently elected mayor of Arcola.

Dr. James E. Watson has been appointed city health officer of Peoria to succeed Dr. Laurence R. Cary.

Dr. Anfin Egdahl, Rockford, has been appointed director of the state health laboratories of North Dakota.

Dr. Roswell T. Pettit, Ottawa, while in Paris, France, was struck by a taxicab. He was confined to the hospital with injuries for ten days. Dr. Pettit has been sending letters for publication in the Earlville *Leader* with interesting accounts of his post-war impressions as com-

pared with his trying experiences in the service in 1917-18.

Dr. Charles Adams was given a dinner at the Drake Hotel, May 10, on the occasion of his return from the Orient. It is announced that Dr. and Mrs. Adams will hereafter reside permanently in Honolulu.

Dr. Tullie Van Boyd, East St. Louis, who served as a major during the World War at Castel Franco, Italy, has received the Italian Order of St. Marco and St. Lazarus.

Dr. Otto L. Schmidt was elected president of the Illinois Historical Society, May 5, at Springfield.

Dr. Orville Winthrop McMichael, professor of medicine in the Polyclinic Hospital, has been elected commander of the Illinois Naval and Military Order of Spanish-American War Veterans.

Dr. R. V. Brokaw has accepted the position of full-time health commissioner of Jacksonville and Morgan County. Dr. Brokaw was formerly engaged as supervisor of hygiene in the public schools of Jackson, Mich.

Dr. Francis Gerty has been appointed superintendent of the Cook County Psychopathic Hospital, Chicago, to succeed Dr. Clarence A. Neymann, who has resigned to resume private practice. Dr. Gerty has been a member of the consulting staff of the hospital for several years.

News Notes

—Dr. Sydney Walker, Jr., has provided \$200 per annum for a scholarship for the furtherance of research in physiology at the University of Chicago. This will be known as the Sydney Walker III scholarship in physiology, in memory of his son.

—It is reported that Dr. James D. Banta, Rock Island, was sentenced by Judge Fitzhenry, May 9, to two years in the Leavenworth penitentiary, following conviction for violation of the Harrison Narcotic Law.

—At a meeting of the Peoria Medical Society, held recently, it was decided that the offices of Peoria physicians should close on Thursday afternoons during May, June, July, August and September. Emergency calls will be answered from Main 214, the Physicians' Exchange.

—The Illinois Health Society, with head-

quarters in Chicago, was recently granted a charter by the secretary of state. The incorporators are Dr. Isaac D. Rawlings, Springfield, and Dr. William A. Evans and Mary R. Plummer, both of Chicago.

—A newspaper item states that Dr. Isaac Albright, Chicago, was recently fined \$250 and costs for violation of the Harrison Narcotic Law. It was charged that Dr. Albright had received nearly \$2,000 from three persons during eighteen months, through illegal sales of drugs.

—On May 12 the Institute and the Chicago Society of Medical History held a joint meeting at which Prof. James H. Breasted of the University of Chicago read a paper on "The Edwin Smith Medical Papyrus, the Oldest Medical Book in America." Dr. L. L. McArthur, representing the Fenger Memorial Association, delivered an address on "The Life and Works of Christian Fenger."

—Hoopeston physicians plan to close their offices Thursday afternoons and evenings till further notice.

—La Salle County Medical Society passed resolutions petitioning the supervisors of La Salle County to add rooms and equipment for the use of the sanitarium board to enable them to care for all the tubercular patients in the county who should be admitted into the Sanitarium for treatment.

—Colonel Henry Page, dean of the Medical School of the University of Cincinnati, and Professor A. P. Mathews, with forty members of the graduating class, were entertained at luncheon by Mr. Chas. G. Merrell, president of the Wm. S. Merrill Company, at the Hotel Gibson, Cincinnati, on May 23. Dean Page and the members of the class spent the morning inspecting the Merrill Laboratories, where among other things they saw an interesting collection of medicinal plants from the Merrell drug gardens.

—Dr. H. W. Dueringer was elected president of the Elgin Physicians' Club, May 8, to succeed Dr. George F. Ruppert. Dr. Sally Y. Howell was elected vice-president, succeeding Dr. H. W. Dueringer, and Dr. Olive H. Kocher was re-elected secretary and treasurer. Doctors L. J. Hughes and James Howell were re-elected members of the program committee.

—Owing to material at hand, of unusual interest, the scientific program was provided by

club members. Dr. J. F. Bell presented a case of *Jemphigus Vulgaris*, a rare skin disease, supposedly of bacterial origin, and usually fatal. The disease is characterized by the appearance of blebs, blisters, several at a time, or in crops, which last a few days, subside, and crust over, to be followed by others which run a similar course. In severe forms the greater part of the skin surface may be involved and these cases usually terminate fatally. Mild forms may have no fever but more severe cases have chills and fever. The case reported by Dr. Bell occurred in a physician, an octogenarian. The patient was seen by many Elgin physicians.

—Dr. L. J. Hughes reported two forms of mastoid infection following recent influenza; one of the fulminating type, and the other variety, benign in appearance, but just as dangerous as the fulminating type and, probably, more so, on account of the lack of symptoms.

—Both papers were followed by interesting and instructive discussion.

—Following adjournment there was a short social session, refreshments being served. This meeting served to close one of the most successful seasons in the history of the club.

—One of the best attended meeting of the Peoria City Medical Society was held on April 21. Dr. Frederick Tice of Chicago led the Scientific program with a paper on "Some Considerations in the Terminations of Heart Murmurs," giving special attention to the various findings in the mitral stenosis, especially the Graham Stelle or diastolic murmur. In the course of the business meeting the Society voted to continue the custom started last year of closing offices on Thursday afternoons during the hot weather.

Deaths

WILLIAM GRAHAM BRYSON, Elgin, Ill.; Medical Department of Columbia College, New York City, 1866; McGill University Faculty of Medicine, Montreal, Que., Canada, 1867; died, April 28, aged 80, at the Sherman Hospital, from cerebral hemorrhage.

EUGENE OTTO CHRISTOPH, Chicago; University of Freiburg, Germany, 1887; a fellow A. M. A.; formerly gynecologist to the Provident Hospital and Training School Association; died, April 19, aged 60, from chronic nephritis.

JOHN A. DAWSON, Chicago; College of Physicians

and Surgeons, Keokuk, Iowa, 1877; a fellow A. M. A.; died, May 10, aged 68, from paralysis.

WILLIAM H. FITCH, Rockford, Ill.; Chicago Medical College, Chicago, 1868; died recently, aged 78, from cerebral hemorrhage.

JESSE M. GARLINGTON, Ottawa, Ill.; Missouri Medical College, St. Louis, 1869; Civil War veteran; for twenty-three years chief surgeon for the western division of the Baltimore and Ohio Railway; died, May 6, aged 76, at the Ryburn Memorial Hospital, following an operation.

WILLIAM L. GOODELL, Effingham, Ill.; Rush Medical College, Chicago, 1866; died, April 28, aged 76.

JOHN LOURIE S. HALL, Chicago; Bennett College of Eclectic Medicine and Surgery, Chicago, 1878; Civil War veteran; member of the state legislature; died, April 26, aged 79.

JOHN A. KING, Springfield, Ill.; Eclectic Medical Institute, Cincinnati, 1883; died, May 1, at the St. John's Hospital, aged 68, from gangrene, following an operation for amputation of the foot.

CHARLES WILLIAM MILLER, Peoria, Ill.; University of Michigan Medical School, Ann Arbor, 1908; a fellow A. M. A.; formerly county physician; died, April 22, aged 41, at the Saint Francis Hospital, following an operation.

ROLL NESTOR MILLER, Brookport, Ill.; University of Louisville Medical Department, Louisville, 1888; died, April 20, aged 53, from cerebral hemorrhage.

JAMES H. MORE, Polo, Ill.; University of Buffalo Department of Medicine, Buffalo, 1853; died, April 20, aged 92, from senility.

CHARLES A. SIMMONS, Chicago; Northwestern University Medical School, Chicago, 1896; a fellow A. M. A.; died, May 17, aged 48, from ulcer of the stomach.

JAMES P. SLAUGHTER, Chrisman, Ill.; Louisville Medical College, Louisville, 1887; Civil War veteran; died, April 19, aged 78.

ADOLPH BELMONT SMITH, Rockford, Ill.; Rush Medical College, Chicago, 1906; a fellow A. M. A.; was accidentally drowned recently, aged 42.

LEMUEL TIBBETS, Rockford, Ill.; Bellevue Hospital Medical College, New York City, 1867; a fellow A. M. A.; formerly president of the board of pension examiners; at one time on the staff of the St. Anthony's Hospital; died, May 1, aged 79.

RICHARD E. VERNOR, Nashville, Ill.; Miami Medical College, Cincinnati, 1876; member of the Illinois State Medical Society; Civil War veteran; died, April 5, aged 75.

FLOYD J. E. WESTGATE, Chicago; Wisconsin College of Physicians and Surgeons, Milwaukee, 1901; died, May 15, aged 60, from acute anemia.

MARY BLANCH WHITE, Chicago; University of Michigan Medical School, Ann Arbor, 1898; member of the Illinois State Medical Society; died, May 11, at the Evangelical Deaconess Hospital, from acute endocarditis.

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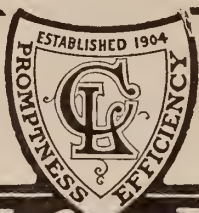
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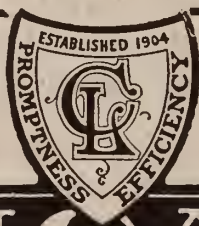
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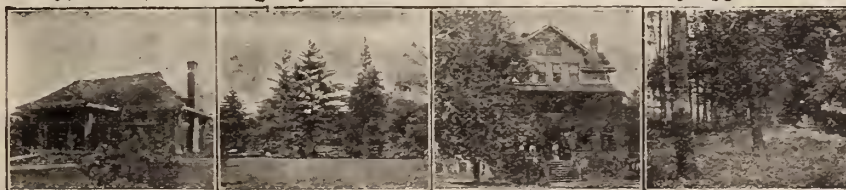
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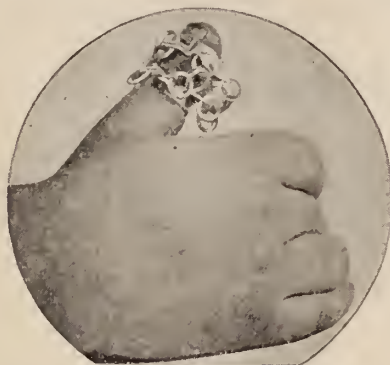
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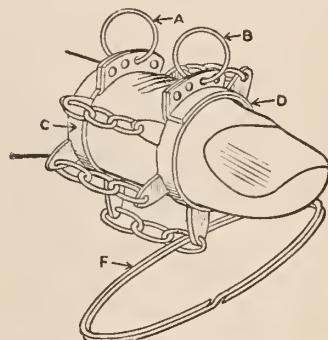
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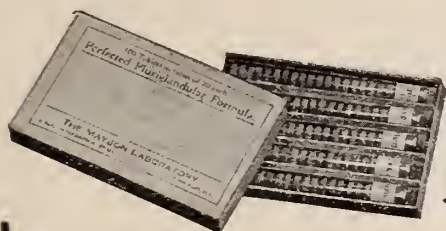
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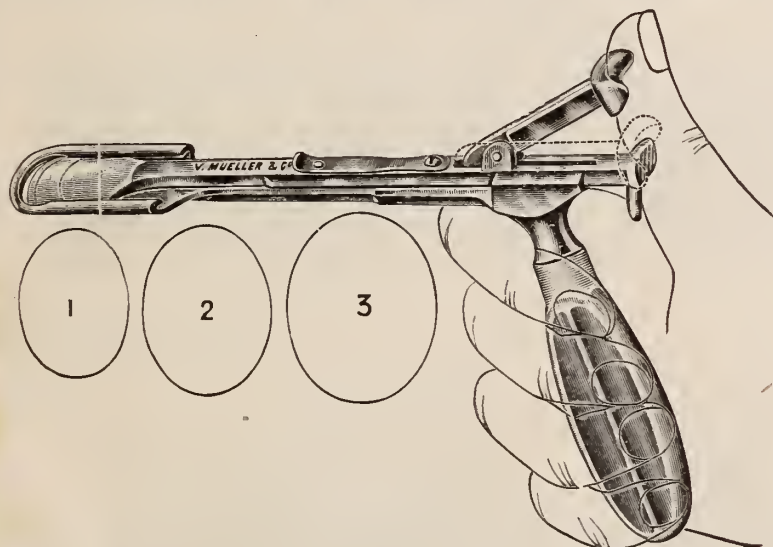
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